

Periodical *WR*

# AMERICAN BEE JOURNAL

December, 1945



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Lot	Queens	2-Lbs.	3-Lbs.	4-Lbs.	5-Lbs.
1- 5	\$1.35	\$4.25	\$5.25	\$6.25	\$7.25
5-15	1.30	4.15	5.15	6.15	7.15
15-25	1.20	4.00	5.00	6.00	7.00
25 up	1.15	3.90	4.90	5.90	6.90

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1946

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1946

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#### Quality Queens and Package Bees

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1 to 24,	\$1.25	\$4.00	\$5.10	\$6.20	\$7.30
25 to 99,	1.15	3.75	4.80	5.85	6.90
100 up,	1.05	3.50	4.50	5.50	6.50

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FEATURE ARTICLES—NEWS ITEMS  
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Hardy Leather Colored ITALIANS  
Fast Conscientious Service.

2-lb. with queen .....\$4.00  
3-lb. with queen ..... 5.00  
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and

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## American Bee Journal

HAMILTON, ILLINOIS  
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NATIONAL WAR FUND NATIONAL WAR FUND



## MERRY CHRISTMAS

May we have the pleasure of serving you this coming season.

### ITALIAN BEES AND QUEENS

Lucedale Apiaries, Lucedale, Miss

## Italian Bees and Queens

Prices to June 1

Queens	2-Lb.	3-Lb.	4-Lb.
1-24	\$1.25	\$4.00	\$5.10 \$6.20
25-99	1.15	3.75	4.80 5.85
100 up	1.05	3.50	4.50 5.50

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Gives the latest news and views of the rabbit world—an illustrated monthly magazine of general and educational features. One year \$1.00; three years, \$2.00; sample 15c.

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3-lb. package with queen	4.50 ea.
4-lb. package with queen	5.50 ea.

Queenless package, deduct 90c from above price. 20% down, books order, health certificate and safe delivery guaranteed. Address

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HAMILTON, ILLINOIS

May we take this means to thank our many customers for their cooperation and patronage and wishing them a

### MERRY CHRISTMAS

and a most

### HAPPY NEW YEAR

We are now booking orders for 1946

B. J. BORDELON APIARIES  
Moreauville, La.

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The Leading Bee Journal of the Southern Hemisphere is the AUSTRALASIAN BEEKEEPER  
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Canadian beekeepers have much in common with their neighbors in the U. S. If you are interested in bee activities "North of the Border," send us your subscription NOW. We will see that you receive each monthly copy regularly.

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# 1946

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## "HONEY GIRL" ITALIAN QUEENS

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Every informed beekeeper knows that our modern system of beekeeping is based on the movable comb hive as invented by L. L. Langstroth nearly a century ago, but few know that dozens of the fundamentals of bee manipulation and of bee activities were first expounded by Langstroth. Read of his life in this interesting book.

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**SPECIAL HOLIDAY PRICE — \$2.00 POSTPAID**

**AMERICAN BEE JOURNAL**

**Hamilton, Illinois**



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**QUEENS**

**CAUCASIANS**

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for Resistance

Bred to Italian  
Drones

**\$1.25 EACH, BALANCE OF SEASON**

2-Lb. pkg. bees with queen \$4.00 Over 25 years a shipper in U. S. A.  
3-Lb. pkg. bees with queen 5.00 and Canada. Send for free circular

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## Italian Package Bees and Queens

	2-Lb.	3-Lb.	4-Lb.	Qu'ns
1 to 24	\$4.00	\$5.10	\$6.00	\$1.25
24 to 99	3.75	4.80	5.85	1.15
100 up	3.50	4.50	5.50	1.05

**Kermit Anderson**

OPP, ALABAMA

## BEE SUPPLIES

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## BOOKING ORDERS FOR 1946

for our bright Three-Banded Italian Queens and Package Bees. Prices:

	Queens	2-Lb.	3-Lb.	4-Lb.	5-Lb.
1-24,	\$1.25	\$4.00	\$5.10	\$6.20	\$7.30
25-99,	1.15	3.75	4.80	5.85	6.90
100 up,	1.05	3.50	4.50	5.50	6.50

We ask 10% deposit with orders booked in advance. We guarantee safe arrival, satisfaction.

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## HONEY

### WANTED

ANY QUANTITY, QUOTE PRICE

WE PAY THE FREIGHT

**HOFFMAN BROKERAGE CO.**

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## Leather Colored Italians

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Warrenton, Mo.

**A-B-JAdsBring Results**

**AMERICAN BEE JOURNAL**

# HAVE YOU BOUGHT A V-BOND?

## An Announcement

Effective January 1, 1946  
subscription rates on American  
Bee Journal are to be raised to  
the following:

1 year	\$1.50
2 years	2.50
3 years	3.00
Through Association Secretary	\$1.00 a year.

Advancing labor and paper  
costs have made this action im-  
perative.

Our old subscribers have an  
opportunity to renew before  
January 1 at the old rates now  
in effect:

1 year	\$1.00
2 years	1.50
3 years	2.00
Through Association Secretary	75 cents a year.

Foreign postage in all cases  
25 cents a year.

**American Bee Journal**  
Hamilton, Illinois



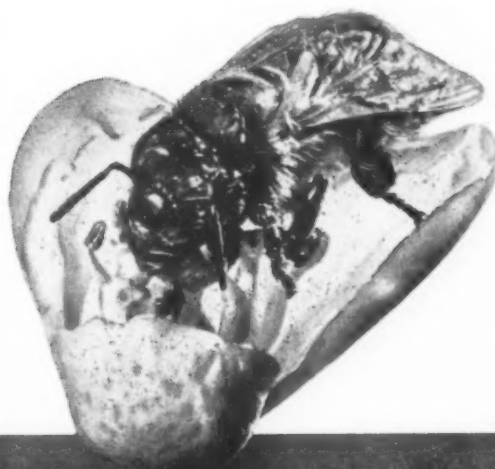
### LADINO CLOVER

Read what Meade and Newell say about  
this giant white clover on page 433. Makes  
two or three times the growth of ordinary  
white clover; of most value under irrigation  
or where rainfall is abundant. Honey like  
that from white Dutch. Three pounds of seed  
per acre is enough. Seed per packet, 20c;  
per pound, \$2.50 postpaid; ten pounds or  
more, \$2.25 per pound, postage extra.

**MELVIN PELLETT**  
ATLANTIC, IOWA

DECEMBER, 1945

Good honey comes from good bees and  
good flowers. Good sales come from  
good-looking, easy to pack, easy to label  
Hazel-Atlas Honey Jars.



**HAZEL-ATLAS GLASS COMPANY**

**WHEELING, W. VA.**

### QUEENS, Gentle Leather Italians

ALL BREEDERS NORTHERN RECORD PRODUCERS.

Our system of holding queens in large two frame nuclei until egg  
laying ability and pattern is proven, assures you of the finest queens to  
be had at any price.

ANY NUMBER \$1.25

Please book your orders for 1946 as soon as possible and help us to  
help you. Prices and terms will be announced later.

**The Rich Honey Farms**

POST OFFICE, JEANERETTE, LOUISIANA

# Many Thanks

You deserve the thanks of our organization for the kind way you accepted our frequent inability to supply you with Lewis Beeware the past season. Few orders were filled complete, as our supply was so limited it was necessary to divide what was available among as many as possible.

Some items have already become more available since the lifting of restrictions following the end of the war, and no doubt more will in 1946. Fortunately we were able to supply all the foundation wanted, and a reasonable share of most other items.

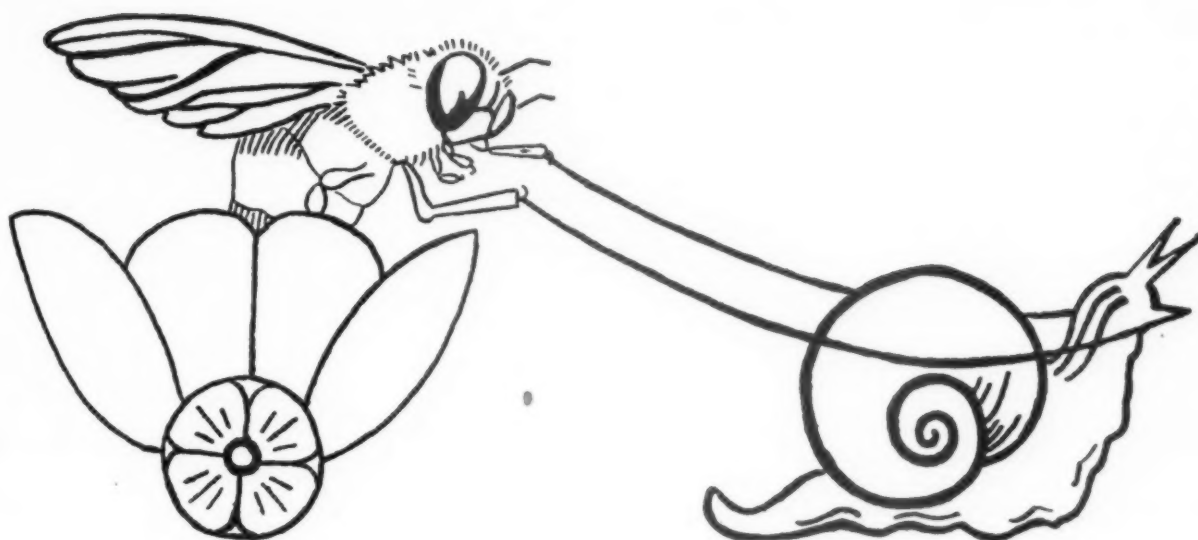
Lumber still continues the shortest item for volume production and apparently will so continue until well into 1946, perhaps even longer. However, we will make as many bee supplies as we can for our old customers and look forward to the day when we may again sell to any and all freely.

There is a "hangover" from war restrictions and slowness of conversion which still may make some items short of supply and keep some from the list. All in all, the honey industry can look forward to a better supply year generally than in 1945.

## **G. B. LEWIS COMPANY** **WATERTOWN, WISCONSIN**

Box 825, Albany, 1, N. Y.; Box 683, Lynchburg, Va.;  
214 Pearl St., Sioux City, 14, Iowa





# ARE WE HORSE AND BUGGY BEEKEEPERS?

By CHARLES W. GOUGET

**I**N a system of free enterprise business must make a reasonable profit to cover its overhead: wages, materials, sales, advertising, depreciation, etc. For most manufactured products except foodstuffs, which have a rapid turnover, the selling price must be at least forty per cent above the production cost. In many cases such as the manufacture of vitamins, tooth paste and pharmaceutical supplies the margin of profit may be enormous and all out of proportion to its original cost. Whatever the ethics of the matter may be, and whatever may be its long range implications, the naked truth remains that these products are able to advertise long hours on the radio, advertise in street cars and on bill boards and even send out free samples because of the profit they make on the article. In many cases the article could not exist without the radio advertising.

Where can we turn on the radio dial and find someone advertising "Nature's First Sweet—for a lift in the morning, or a pick up in the afternoon—when you get that tired worn out feeling." Surely, honey has greater natural appeal than most of the patent medicines that are advertised and it cannot be questioned that it works "after nature's own order." Still, how much radio advertising can be done with honey at sixteen cents a pound unless the unit cost is reduced much farther than

seems possible with present day equipment.

## Hobby vs. Business

A person who has a hobby is not interested in profits. He works for the joy of working, he learns for the joy of learning, and for the most part time and even expense may not be a factor. In no other hobby is this more literally true than in beekeeping. From the standpoint of the individual this condition is a healthy one since it provides unlimited time for study and observation which cannot be spent by the commercial beekeeper. In addition, since most of

the honey produced by the hobby beekeeper is produced for home consumption the treat to Nature's Sweet is found at the back door pure and unaltered. A great deal of sampling can be done over the back fence and this helps to create a taste for and a demand for real honey. This objective advertising is good for the honey industry.

By the very nature of his enthusiasm the successful hobby beekeeper tends to multiply the number of his hives without a very clear idea of where he is going or where he may end up. It is as if he were on a beekeeping "binge" until some day the pressure produced by the multiplicity of chores connected with more bees, more hives, more frames and more honey may suddenly bring him to the unhappy conclusion that he is in the honey business with hobby equipment and hobby techniques. Even when faced with this reality he may hope that he can absorb the surplus work by making a few more storage tanks, by improving his decapping facilities, and in general—just spreading himself out a little thinner. Little does he realize that commercial beekeeping attempted on hobby time with hobby make-shift equipment may eventually produce an inferior product that in a long run will harm the honey industry.

## What Is the Problem?

Theoretically there is an answer



to every problem. Practically the solution necessary to bring about that answer may be very difficult or even unattainable.

The unit cost of any commodity is determined by the number of units produced and by the investment in equipment and man hours necessary to produce the commodity. It should not take a mathematical wizard to find out that when one must invest fifteen cents in materials for each standard frame constructed and fifteen minutes of valuable time plus the time and outlay required for hive bodies, extracting equipment etc., that the cost is out of proportion to a wholesale selling price of sixteen cents a pound, even though that cost may be spread over a period of five years or more. To increase the number of units produced does not solve the problem, and may even defeat its own purpose as long as the amount of hand labor remains more or less constant and as long as the beekeeper must buy his equipment at retail prices and sell his product at wholesale prices. Where the margin of profit is so small that only the most efficient producers can exist at a subsistence level, and where those who exist above subsistence must profit from other beekeepers' failures in order to reduce his hand labor, beekeeping becomes a "procession" instead of a profession. Evidence supporting this fact can be found most any month in any bee magazine. Any industry that must depend in part on the failures and miseries of its own members cannot rest on a firm foundation nor develop as it should.

#### What Is the Answer?

When a dental student decides to go into business he can call on any one of a number of dental supply houses to advise him as to the equipment he may need for his office. In addition they will help him determine the most efficient way to arrange it so as to save the most time, steps and energy. The chances are that he will buy his equipment as a unit from one concern so that the parts of the unit will be made specifically for each other and thus insure maximum efficiency and appearance in his work. He will not even consider the idea of getting along with homemade, make-shift equipment such as an old kitchen sink and a foot power drill. To even think of such stuff would be ridiculous in modern dentistry but such comparisons are without limit in the honey industry.

There seems to be no service to the honey producer similar to that rendered to the dentist, and no small units of equipment that will carry the honey from the extractor to the bottle and complete all the processing on the way. Such a unit

could easily be placed on the market by a large bee supply concern or a large mail order house at a cost much less than the sum of all of its parts, by reason of its mass production. Such units would save a great deal of time and money for the producer and greatly improve the uniformity and quality of the product. Saving time means greater profits, and better quality in a long run means higher prices. There is little doubt that most small producers with fifteen or twenty hives would prefer to buy a small unit that will do the complete job rather than spend the same money for a makeshift that may turn out an inferior product. The responsibility for leadership in this field lies most naturally with the large manufacturers of bee equipment since they are the only ones really equipped to do the job well. Lip service on the lack of uniformity in the products of small producers will be of little value until there is an efficient means at his disposal for producing a quality product at a minimum cost.

However, the production of processing units is not the whole story connected with producing honey more efficiently. It is difficult to explain why the Langstroth type of hive is considered the pinnacle of hive efficiency by beekeepers except for the fact that it is the only type available. It is hard to imagine a more inefficient method of producing standard frames than the method we now have, unless we should break them up into a few more pieces and assemble them like a jigsaw puzzle. Each standard frame assembled with wired foundation must cost the beekeeper at least thirty cents in time and materials, if he counts his time only at sixty cents an hour. If his time is worth more than sixty cents an hour it will cost him a great deal more. This is too much when we consider the additional labor and equipment involved in processing and the fact that the frame may last only five or six years during which time it may be completely filled with sixteen cent honey only two or three times on the average. Any observing beekeeper can multiply the inefficiencies in honey production by the dozen down to the back breaking manipulation of heavy, deep supers and even the time wasted in refueling the smoker that gets balky when one needs it the most. At present each beekeeper solves his own problems in his own way from just plain struggling with heavy loads to devising clever devices for saving time and labor. If he is a good mechanic he wins, if he is a poor mechanic he loses.

Before honey can take its place before the public as a commodity

that people must have there must be a common answer to the problems that are common to most beekeepers.

#### Conclusions

In conclusion, if we are to keep our eyes fixed on our goal of: More honey for more people, we should keep the following ideas in mind:

1. That hobby beekeeping is probably beneficial to the honey industry, but commercial beekeeping attempted with hobby equipment and hobby techniques may be decidedly harmful.

2. Beekeeper's publications must assume that beekeepers know how to handle bees, for the most part, and spend more time educating them in processing methods and labor saving devices.

3. Small units for processing small amounts of honey must eventually be placed on the market to take the place of individual make-shifts that cost just as much and turn out a poor product. Lip service for more careful production with present methods will be of little value.

4. We must not lose the gains we have made during the war due to the shortages of sugar. To maintain these gains we must reduce the amount of hand labor involved and increase our mechanical efficiency. A quality product must be brought before the public with energy and imagination to make people feel the same need for honey as they now have for automobiles, cosmetics, nail polish, and even the World's Series. To attain this end the unit cost must be very low in relation to the selling price if the honey industry is to lift itself by its bootstraps out of the "Horse and Buggy Stage."

Only by lifting itself by its bootstraps can it adequately support the experimentation necessary to explore the possibilities of honey as a food and a therapeutic agent, or adequately support an organization that will keep the benefits of honey constantly before the public.

Illinois.

— V —

#### WHEAT SYRUP

A process of making wheat syrup, developed in the research laboratory at Peoria of the U.S.D.A., has been taken up commercially. One company has been producing it at the rate of one million pounds a month, at a market value between eight and ten cents a pound.

Making sugar from corn cobs cottonseed hulls, flax shives and wheat straw is another development. So goes the parade of sugar, all offering competition to our own product and emphasizing the need for constant effort to maintain honey in its rightful market for its own special merits.

# HONEY PLANTS ON FARM LANDS

**H**UNDREDS of letters come to the American Bee Journal from readers who are anxious to improve their bee pasture. Although it has long been said that it would not pay to plant for bee pasture alone, the results obtained in our honey plant garden disprove this teaching. We are convinced that the beekeeper can do a great deal to stabilize his bee pasture and to increase the size of his crops.

The following letter is typical of several that have come from large land owners who are interested in bees:

"We have about 800 acres with lots of waste land. On some land we have grown Lespedeza and want to disk some of it for oats. Some land has been limed recently and some has had no lime for twenty years. We will plant an acre or two of mustard. What are your suggestions?"

## For Cultivated Land

For such a purpose plants should be used which will give a good return for other things than bee pasture. The clovers can be grown to provide both a seed crop and bee pasture, since the more bees the better the seed crop will be. Alsike and white Dutch clover are especially promising at this time since seed prices are very high. Bird's-foot trefoil is also worth trying since the demand for seed is heavy and price is likely to rule high for some time. It will do well on soils not rich enough for the clovers.

In the Mid-West sweet clover ranks at the top as a source of honey and is also a profitable crop when grown for seed or for pasture for livestock.

## For Waste Land

For waste lands I would suggest *Salvia pratense* which provides good bee pasture during the month of May and *Salvia superba* which blooms later. The two provide several weeks of bee pasture in spring and will carry the bees well into the white clover season. Neither is likely to become objectionable or spread into fields like weeds but both are able to maintain themselves quite successfully when once established.

Marjoram is also desirable for naturalizing on waste lands and comes into bloom in mid-season. Mountain mint and motherwort bloom in late summer and are likewise desirable for waste land areas.

If seed could be had, the *Lespedeza bicolor* and *Lespedeza cyrtobotra* would be excellent for planting on land too rough for use except for pasture for animals. They are too coarse for hay but they yield an abundant browse for cattle or sheep



Above, *Lespedeza cyrtobotra*, too coarse for hay but a good bee plant. At right, blossom and leaf of garden sage.

and at the same time splendid late summer bee pasture. With such an area our reader has many opportunities to provide good bee pasture on his own land.

## A Crop For Profit

New Jersey reader writes that he has a small farm and apiary and desires to get away from truck farming. He asks what he can grow that will provide pasture for the bees and at the same time some additional return.

It may still pay to try Garden Sage to provide both bee pasture and a profitable crop. The demand for seed and leaves has been heavy during the war and prices have ruled high so that the crop has been very profitable. There is, of course, a prospect that prices will be lower and that it will not pay so well now that it is possible to import from Europe again.

Another suggestion is the native bittersweet, (*Celastrus scandens*). Bittersweet is in great demand in New York market for winter decoration. Thus far the market has depended entirely on the wild plants for supply but I cannot see any reason why it should not be possible to grow it commercially. The first persons to establish plantings should do as well as the pioneer growers of holly have done.

It would seem that it could be grown on arbors in much the same

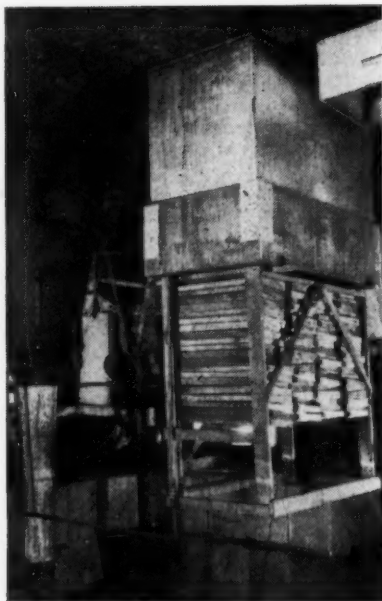


way as grapes are raised. If one uses care in planting and propagates only from cuttings made from heavy bearing individuals he should get a good return.

The present market price is 25 cents per pound including long stems cut with the berries. Only the native species should be used as the oriental variety is not likely to find sufficient demand to be profitable. The market requires only the berries which should be cut as soon as they change color and before they pop open. Thus the sale of the crop does not in any way reduce the bee pasture which the vines offer at blooming time.

Frank C. Pellett.





Above, rendering tank, with cage supported over it, and loaded with frames, ready for the lye water. Steam boiler at right. Wax press back of it. At right, wax press with one pressing about finished.

**F**ACED with the task of rendering about 550 supers and extracting combs and handicapped by lack of help I hit upon the following scheme: We used to cut out each comb by hand, which destroyed the wiring. Then we began to steam out the combs, a single super at a time, which was much faster and left the frame wiring intact. This winter we rendered the combs, eight supers at a time, which was still faster and less work.

Our plumber made a galvanized tank out of heavy material, 22 inches wide, 42 inches long and 36 inches deep, the top reinforced by 1x12 inch board. A cage was made out of light material about 1x2 inch strips, 20x40x36 inches to fit loosely inside the tank to hold 80 regular brood combs by alternating the top and bottom bars with each layer. The frames are tied down so they will not float by slipping a piece of 1x4 board over the top and under two cross pieces nailed on the ends of the cage at the right height.

The tank is then filled with water to within a foot of the top and heated to the boiling point and kept boiling by a three-eighth inch steam coil from the boiler.

The cage is placed over the top of the tank and supported by two sticks and is loaded with the combs. When the water is boiling, the cage is lowered into the tank by removing the supports and with a man at each end, is forced down under the water and held there by a 1x2 piece over each end up to the ceiling of the honeyhouse.

The combs soon melt out and rise

# EFFICIENT RENDERING OF WAX FROM COMBS

By LEROY F. BAXTER



to the surface of the tank. The white combs disappear as soon as the boiling water covers them but the dark brood combs take longer. Churning up and down in the tank until they let loose is the next step. The melted combs and cocoons are removed from the tank by a strainer dipper and thrown over into the wax press which is just back of the steam boiler and melting tank. The dipper is made from a light strap iron bent into a 14 inch square and covered with window screen tacked to a wooden handle.

The old brood combs seem to absorb the melted wax and so they are transferred into the wax press. If the water is kept boiling hot there will be little wax left on the frames when they are removed from the tank.

The cage is released and churned up and down and then skimmed two or three times before we remove the empty frames. In removing them the cage is allowed to float and the frames are taken off the top, given a few taps or jarred over the edge of the tank to remove any particles of comb or cocoons adhering. If the frames become cool enough to show signs of coating with wax they are soused down under the hot water again. As long as they are hot the wax does not stick. If the surface of the water shows waxy it is skimmed off with a solid dipper and the material thrown into the wax press. Practically all wax is removed in the skimming with the screen dipper.

There will be only a thin skin of wax on top of the water after it has cooled overnight. Yet the combs come out of the hot water remarkably clean and free of wax and with wiring intact. The whole process of loading, boiling out, skimming off and unloading can be done in fifteen minutes time by two men.

If the combs are moth eaten the web will sometimes wrap around the wiring and then it is removed with a sharp knife by scraping each wire down to the end bar and cutting the ball of web loose. This is best done after the web has cooled and stiffened with the wax.

After the frames have all been freed of wax they are later given a final boiling in lye water which leaves them nice and clean. This is also done by loading the cage with frames and submerging them in boiling water to which 6 cans of lye have been added. They are churned up and down by a man working at each end of the cage, let boil for a few minutes, and then the cage is lifted up and supported over the top of the tank while the frames are removed to their empty supers. With the screen dipper we also remove the scum accumulation with each dipping. With the surface skimmed between each time there is nothing to adhere to the frames. They will be practically as clean as new, and little tightening of the wires is required. Keep the lye water boiling all the time. Cotton gloves are required to protect the hands.

Pressing out the wax is the hardest job. It requires an hour or more for the wax to leave the slumgum in the press after all the pressure possible is given. My press is made of three-sixteenths inch iron plate. It is 17 inches deep, 22 inches wide and 31 inches long. It rests on a frame work of heavy plank material supported by four 2x5 pieces placed in inverted V fashion and bound together at the top by heavy strap iron and separated by a space of 4 inches through which a piece of railroad iron 32 inches long is placed for jack screws to strain against. A 4x4 oak piece was not strong enough. We use two 5 ton jack screws if pressing is large, one if not. The press will handle up to 40 supers of combs.

A frame work made of sticks of wood 1/2x3/4 spaced 3/4 inches apart is placed at the bottom of the press (Please turn to page 434)





Ladino clover in field on which two tons of lime and five hundred pounds of superphosphate, with manure, was applied. Photo from U. S. D. A., by Harmon. Ladino clover resembles white Dutch clover but is much larger and the flower stalk is hollow. It requires abundant moisture.

## LADINO CLOVER

**T**HE past three years I have maintained an apiary of from ten to fourteen colonies of bees on a dairy farm in Sharon, Massachusetts. After the bees have pollinated the fruit orchards they are moved to a location near the dairy. Some forty acres are planted to Ladino clover (the variety that looks like Dutch white clover but larger with a pink tinge to the bloom).

The farm practice here is to grow a good protein food for the dairy, and clover is cut when in full bloom and put immediately into silos. Some two or three crops are harvested during good growing seasons and the bees have a very brief opportunity to get the nectar. About the time the clover is at its best for honey, it is cut. Generally one field is allowed to develop into summer pasture after the first cutting, and there is some of this clover in the regular pasture.

Strong colonies in this apiary have stored from 25 to 75 pounds surplus of pure Ladino clover honey of light amber color. The flavor is excellent and it is in great demand by customers who favor the light honey. It is my opinion that if this clover was allowed to stay in bloom a few days longer or until the blossoms started to set seed that the yield would be several times the amount I am obtaining. In order to obtain a good honey crop I must have every colony in prime condition.

Farmers appear to prefer this variety to Alsike clover for silage, and as this clover develops two or

three cuttings on moist fertile soils, I believe it will be planted quite extensively when the price of the seed is lowered. All clover seed at the present time is too high in price as compared to former years before the war.

Beekeepers might better their bee pasture by furnishing seed to neighbor farmers for trial and talking about this clover with their friends. The future holds great possibilities here in New England for beekeeping when the dairy farms plant this clover as general farm practice.

Sweet clover has never found favor here, and the largest plantings of sweet clover are found in the city dumps, where it has grown wild. Beekeepers near such planting have reported large yields, and it is unfortunate that it is not grown on the farms. Now that we have a clover that yields nectar abundantly and is favorable to dairy farms, let us talk it up to the farmer at every opportunity.

R. E. Newell,  
Massachusetts.

\* \* \*

Ladino clover is not new but it does deserve to be much more widely known both because of its value as a forage plant and its usefulness to the beekeeper. In fact it remains a mystery why so valuable a legume has not had more publicity and why it is not already much more widely used than it is.

It makes a very high quality hay with better food value than many

grain mixtures, it would be difficult indeed to imagine a better pasture for dairy cows than that provided by a good acreage of Ladino. In fact it is so good that any beekeeper can recommend it one hundred per cent to any farmer with suitable land without mentioning that it is also valuable for the bees. It is very definitely a money maker for the farmer with the right soil who is willing to handle it the way experience shows that it should be handled.

As a honey plant it may not be a "wonder" honey plant but it is good and its value to a beekeeper is that, in time, it may well be grown over thousands of acres; replacing, let us hope, lots of the acreage of red clover and stands of pure timothy that may look nice but yield not a drop of honey.

Ladino is well past the experimental stage and its soil requirements, seeding requirements and fertilizer requirements are well known. These are given in some detail here in the hope that beekeepers will try an acre of it wherever possible or that they may induce a neighboring farmer to seed a larger acreage of it.

Ladino grows much like the old white Dutch clover; spreading by means of fleshy stems that root at frequent intervals, sending up numerous long shoots and blossom stems. It is an improvement on white Dutch because of its much larger size and consequently higher crop of fodder or pasturage per acre. The seed cost is high by the pound but not by the acre as it never seems advisable to seed more than two pounds to the acre and one pound per acre in mix-

tures is enough. In fact one half pound to the acre, mixed with any suitable grass and other clovers, if desired, will show up very well and will give the grower a wonderful mixture for hay.

Its soil requirements are not so exact as for alfalfa but there are some worth while points to remember. It should be grown only on soils of good fertility that are either naturally moist or in regions where rainfall is fairly frequent over the season. It should not be grown on a very acid soil unless that acidity is corrected with a ton of lime to the acre. Like most of the clovers it draws much of its nitrogen from the air so that usually its fertilizer requirements are potash and acid phosphate. Two hundreds pounds of super phosphate and two hundred pounds of 60% muriate of potash per acre is recommended.

It has a very quick recovery from either pasturing or cutting for hay but it can be quickly killed out by over pasturing. To be safe it should not be pastured so closely but that it continues to show some upright growth; nor should it be cut for hay so late in the season that it can not regrow before freezing weather.

Wherever there is need for improved bee pasture get your farmer friends to replace some of their red clover and some of their clear grass with either Ladino or Ladino grass mixtures. Its use may spread slowly but in the next few years it should be grown on hundreds of thousands of acres as an improved farm procedure and with resulting better crops for nearby beekeepers.

Robert M. Mead,  
Vermont.

—V—

## EFFICIENT RENDERING OF WAX FROM COMBS

(Continued from page 432)

to allow outlets for the wax. Over this a burlap blanket made of four sugar sacks sewed together is laid. Then the steam coil is placed in the burlap blankets. Into this the skimming from the hot water tank is thrown until sufficient bulk for good pressing is obtained. The contents are thoroughly boiled and melted, then the burlap is folded over the top inclosing the steam coil and cover placed on. The cover is also made of heavy plank material fitting snugly inside the press. On the under side of the cover is nailed  $\frac{1}{2} \times \frac{3}{4}$  inch strips to form outlets for the wax at the top. Then the jack screw is set on top of this cover and underneath the railroad iron and pressure applied as needed.

Most of the water and wax will readily drain off without pressure, with steam from the boiler applied lightly. Afterwards the jack screw

## Who's It?

It has been fun, hasn't it? But here is that end of all good things. Two years is enough and subjects also become more difficult to obtain. Those who have become Who's It fans will suffer pitifully, either in their ego or in their competitive spirit. But, chins up, friends, maybe sometime someone else will propose something just as interesting. Thanks to the fans and for loyal support. Bye now!

**Last Month—Dr. Lloyd R. Watson**

That's who it is, the same Dr. Watson who devised a method of instrumental mating of queen bees, now used in genetical research in bee breeding. He is Professor of Chemistry in Alfred University, Alfred New York. Mrs. Watson is the famous Honey Lady of New York state, whose Honey Pot pours the luscious sweets into the laps of honey lovers all through the East.

The most interesting letter is from V. O. Lee, Charleston, Arkansas: "Not too easy when one compares this picture with others I have seen of the same man. However, the clues are sufficient to make the catch. As you say he has perhaps done more to develop tools to eliminate haphazard mating than anyone else. So I say it is no other than Dr. Lloyd R. Watson." Harold L. Kelly, Silver Springs, Maryland, says: You state that the picture of the mystery man does not resemble the culprit. There are many people the picture does not resemble including our mutual friend, Lloyd R. Watson." John Horton, Conewango Valley, New York, hopes we "won't accuse him of shooting at sitting ducks, but this is

and cover are removed and the slumgum given a good steaming. After this the coil is removed and cover and jack screw again put back and pressure applied. The tank has an inch outlet in the lower corner with a molasses gate. This corner is set about two inches lower than the diagonally opposite corner to allow good drainage of wax. It also makes an ideal tank for melting up 60 pound cans of honey, making sugar syrup and for many other uses.

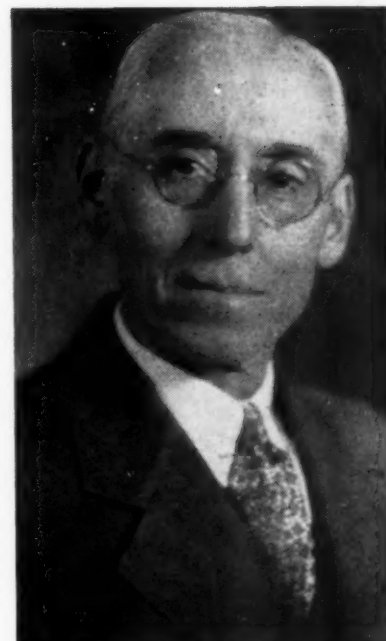
This is a very efficient process and will usually give an average of 3 pounds of wax per 10-frame super. It is also fast and efficient.

Nebraska.

—V—

## HOME IS WHAT YOU MAKE IT

The National Broadcasting Company has just published a series of programs in homemaking for 1945



Watson's latest photo, is of a smooth faced gentleman one of the prophets of beekeeping.

the first unknown I have ever been close to knowing. I'll guess that your famous man of beekeeping is our Empire State product, Dr. Watson, of Alfred University."

Frank Baker, Duck River, Tennessee, and Chas. J. Koover, Altadena, California, name Dr. E. F. Phillips, of Cornell University, New York. Says Koover: His pictures are often in the bee magazines and one can hardly mistake him." J. J. Vargo, Granite City, Illinois, names A. H. Alex of Texas and Edgar L. Griffin, Atkins, Arkansas, nominates Dr. Warren Whitcomb, Baton Rouge, Louisiana.

and 1946 in cooperation with the National Congress of Parents and Teachers, General Federation of Women's Clubs and American Home Economics Association starting October 6. This program will explain all phases of home life, including: housing, food, clothing, family relationships and children.

There are handbooks published by the National Broadcasting Company to help listeners with this course. Each book 25c. Volume 1—General Handbook; Volume 2—Housing; Volume 3—Food; Volume 4—Clothing; Volume 5—Children; Volume 6—Family. Requests for them may be placed with the International Press, P. O. Box 30, Madison Square Station, New York 10, New York.

—V—

# BUY A V-BOND

AMERICAN BEE JOURNAL

# A CURE FOR BEE PARALYSIS

By ALFRED H. PERING

I have not had extensive experience with paralysis, but what experience I have extended over a number of years. All the remedies have been tried and I have found a method sufficiently successful to tell about it.

Some authorities recommend changing queens, especially replacement with a young queen. I have tried that often, especially in cases where requeening was contemplated in any event. The beneficial results were only temporary. There would seem to be a disappearance of paralysis for a time and then it would break out again. Just as soon as the nurse bees that were the progeny of the new queen began feeding larva, the trouble would come back unless there was a copious honeyflow.

This led me to believe that paralysis was caused by something the nurse bees obtained in the production of food for the larva and that this something was in the honey stores. When I fed the diseased colony sugar syrup sufficiently to supply the nurse bees with a source of larval food, the symptoms of the disease would disappear until I stopped the feeding or until a honeyflow rendered feeding unnecessary. A colony once affected would show the disease each time the nurse bees were compelled to draw on old stores within the hive.

Some colonies would show such a quantity of dead and dying bees in front as to cause one to wonder how the colony could manage to keep alive, yet would appear to be desperately trying to maintain numbers. This condition would continue until the colony would dwindle clear out or a copious flow would come, and the colony would at once recuperate and their numerical strength would last until larvae were again being fed from the food produced from old stores.

My remedy is to practice what is usually known as the Damaree system of swarm control. I would hunt up the queen, place her and the comb upon which she was found along with all the adhering bees in a lower hive body and fill up the balance of the hive with either empty combs or with full sheets of foundation.

Then shake the bees off the remaining combs with the greater portion of sealed brood. Shake all the bees off the pollen combs and those combs that appear to contain more sealed honey than anything else. Let the bees shaken off run in at the entrance and place the unsealed brood in the middle of the hive body and put this immediately above a queen excluder.

At the end of three days or when you have found the bees have started work in the lower hive and the queen has left the comb that you originally placed in the hive, shake all the bees off from this comb and place it above the excluder, and examine the combs above for queen cells, destroying them all.

Just as soon as you know that all the brood above the excluder has emerged, extract everything you can out of the top combs. You may safely use these combs when and where you wish thereafter. They can be used in any other hive. You may replace them above the original colony if the colony is strong enough and your honey crop from this hive will only be a little less than the average of the yard.

The object in this manipulation is to remove the source of the trouble. I feel certain that the trouble is in something the bees have gathered and stored in their combs from which the nurse bees get their raw material for the production of larval food.

In my experiments I have fed back some of the honey taken from a paralysis stricken hive to colonies of what I considered to be free and the symptoms of paralysis would show itself in a few days.

I have even hived light or small late swarms on unextracted brood combs from paralytic hives, thinking that such combs, containing more or less honey, would help the swarms into full colonies, only to have the contrary effect.

I have let a few affected colonies alone severely. Some of them would recover and gather a crop and apparently be all right, but the next season the trouble would reappear. I have never had any trouble with the re-use of combs if a thorough extracting is done. I do not think any trouble ever comes from the pollen stored in these combs. There is no danger in using this honey for human food. I have eaten it myself and I am still alive.

I consider the method of cure to be sure and that it will last until such time as the bees may again have access to the source or cause of the disease that started it in the first place. Since practicing this, I have rid myself of paralysis and have had none within the last seven or eight years.

Florida.

— V —

## BUY BONDS

## HALF MILLION ASKED FOR LEGUME SEED RESEARCH

Half a million dollars annually must be appropriated for a comprehensive research program on seed for improved legumes or a high level of nutrition for the American people cannot be achieved, representatives of farm and trade organizations told Harold D. Smith, director of the Bureau of the Budget.

R. D. Lewis, chairman of the Department of Agronomy, Ohio State University, Columbus, testified that "Supplies of seeds of legumes have declined dangerously during recent years."

The entire group agreed that the time has come for the inauguration, by the U. S. Department of Agriculture and cooperating state agricultural experiment stations, of comprehensive and correlated research programs, which should include the following:

"1. Development by modern method of plant breeding of hardy, high yielding, disease resistant, insect resistant, and regionally adapted varieties of major soil-building and forage legumes.

"2. Ways and means of making seed production a regular and less hazardous enterprise.

"3. The relationships of insects to pollination and setting of seed in principal legumes."

Groups submitting the request for the \$500,000 annual seed research fund were: Roger J. O'Donnell, Executive Secretary, American Seed Trade Association, Chicago, Illinois; Stanley Folsom, Chairman of Research Committee, Field Seed Institute of North America, Milwaukee, Wisconsin; C. S. Garrison, Director, International Crop Improvement Assn., West Lafayette, Indiana; John H. Davis, Executive Secretary, National Council of Farmer Cooperatives, Washington, D. C.; Roy Herr, Director, National Federation of State Beekeepers' Assns., Lancaster Pennsylvania; Fred Bailey, Legislative Counsel, National Grange, Washington, D. C.

At the hearing it was brought out that a very serious situation exists in the production of seeds at the present time. It was shown that in Utah seed production has declined from about 24,000,000 to less than four million pounds. In several localities good crops of seed have been secured for a short time only to be followed by a rapid decline.

At the present time practically all reserves of seed are exhausted thus making it very difficult to meet the urgent needs for planting next spring. (Please turn to page 450)



# LILY LIKE A PORCUPINE

By NATT N. DODGE

**I**T'S a tough break for beekeepers that yuccas (yuk'-kus), as a genus, yield neither pollen nor nectar. In times of normal economic conditions when low honey prices make only the most prolific nectar sources profitable and thousands of tons of nectar yearly are "wasted on the desert air", marginal honey plants are of little interest. But now, when honey buyers plead with beekeepers on bended knee honey from any source is worth

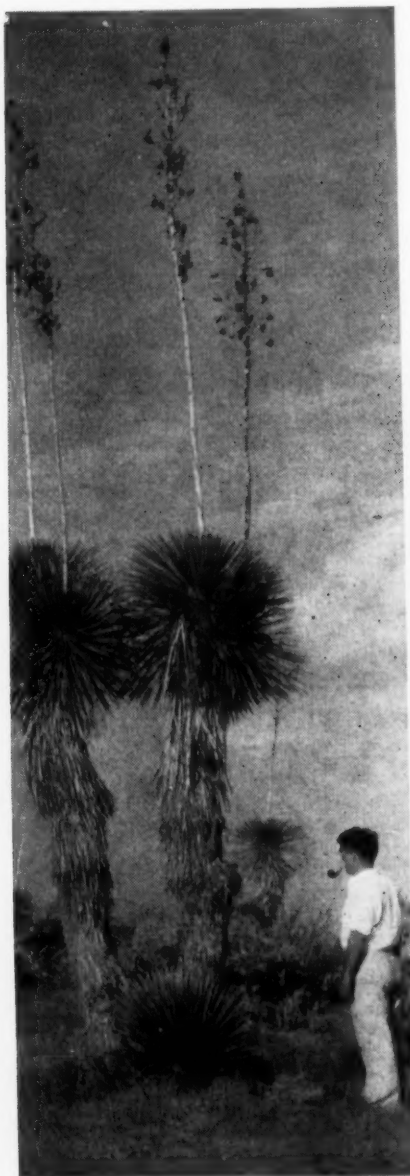
its weight in sugar ration coupons. And yuccas, if they yielded nectar, could add many tons to the shipments of honey that come out of the Southwest.

Although some species of yucca endure the sandy soils of humid climates and are the pride of horticulturists in European as well as American gardens, the genus as a whole prefers the arid plains and deserts of the great Southwest. From Texas to California and from Utah and Wyoming to Central America, the yucca is the trademark of the open range.

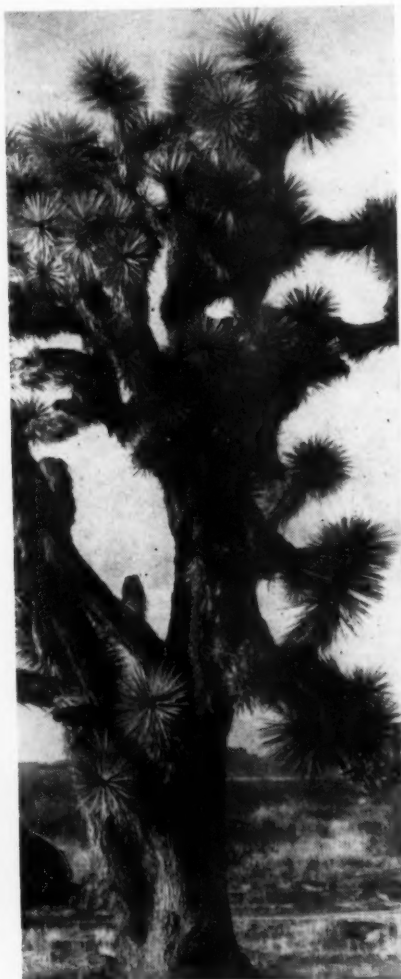
To the sophisticated traveler touring the Southwest, the yucca may lose it glamor and become a shapeless weed in a monotonous landscape. It is difficult to conceive of any plant

that looks less useful to man than this prickly prairie proletariat with fibrous needle-pointed leaves and pithy stems. Yet several species of yucca have interesting commercial uses and are of considerable significance in the economy of modern Indians. That the yucca played an important part in the daily lives of the prehistoric human inhabitants of the Southwest is attested by the numerous remains of yucca-fibre textiles, sandals, "cuds" or "chews", and seeds which archeologists have found while excavating cliff dwellings and other ruins. One national monument preserving a large ruin in southwestern Colorado has been named Yucca House. Because it is found throughout the state, and because its beauty and fragrance is typical of the free and open hospitality of the Spanish settlers, the glorious panicle of the yucca has been adopted by New Mexico as its state flower.

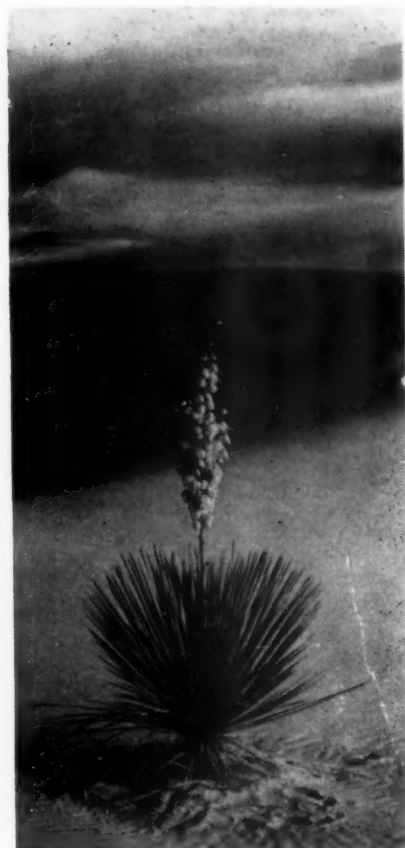
Native to North America and the West Indies, and confined largely to the arid Southwest and the tableland



It is not hard to understand why the Mexicans call *Yucca elata*, the Palmilla, meaning Little Palm.



Above, the Joshua Tree, largest of the yuccas, so ungainly, that it exerts a strong appeal and tourists go miles to see them.



Alone in a sea of sand. Thousands of visitors at the White Sands National Monument thrill to the story of the yucca and its ability to keep its crown above the dunes.



of Mexico, the yucca genus has approximately 30 species. These vary from the small, stemless, stiffleaved Soapweeds of the prairie regions to the tall Palmilla and the grotesque Joshua Tree. The latter species (*Yucca brevifolia*) attains a height of over 30 feet and a trunk diameter of more than 2 feet. It is found in the region where Utah, Nevada, California, and Arizona hold rendezvous and occurs in all four states. There are several heavy stands or forests of the Joshua, one of the most spectacular, in California, being reserved as Joshua Tree National Monument.

"Yucca", according to the Standard Encyclopedia of Horticulture, is the native name for the cassava and was erroneously applied to the stiff-leaved genus of the Southwest by Girarde. Picturesque local names have been given to various species. Best known among these are Soapweed, Soaptree, Spanish Bayonet, Spanish Dagger, Datil, Our Lord's Candle, Palmilla, Mission Bells, and Adam's Needle. The latter has been widely cultivated and hybridized and, because of its hardness and the delicate beauty of its flowers, is used as an ornamental in gardens and landscape plantings in the United States, England, and in Europe, particularly along the Mediterranean.

Commercially the yucca is not important in the United States. Since the war cut off shipments of Jute from India, some consideration has been given to a plan for the large-scale harvesting of yuccas for the leaf fibers to be used in the manufacture of ropes and bagging. In the 1880's a mill was constructed by an English company on the banks of the Colorado River for converting the wood of the Joshua Tree into paper pulp. Although the process was successful and several issues of the London Telegraph were printed on the paper, the cost of harvesting was excessive and the project was abandoned. The light, strong wood of the Joshua has been found ideal for the construction of splints indicating a possible wartime use. In the cattle country *Yucca elata* has proved valuable as an emergency stock feed during drouths, the stems being chopped up or shredded and mixed with concentrates such as cottonseed meal. During the great drouth of 1918, thousands of cattle were saved from starvation through emergency yucca rations. Flowers and young leaves of low-growing yuccas are browsed by stock. During the winter of 1942-43 reports from Mesa Verde National Park in southwestern Colorado record the browsing by deer of leaf-tips of yucca which protruded above the snow. Analysis of the dung of the prehistoric ground sloth, discovered in a cave near Pierce's Ferry at the western end of the Grand Canyon,

indicate that the Giant Joshua was the principal source of food for this strange creature of a bygone day.

Palm-istle is a plant fiber of some commercial importance as cordage in Mexico and is gathered from *Yucca carnerosana* known to the natives as Palma Pita and Palma Samondoca. This species enjoys considerable use, the trunks being gathered for the construction of fences and the walls of houses. Split open, the soft interior of the stems is eaten by livestock. The large flowering panicles are eagerly consumed by cattle, and in the bud stage are roasted or boiled for human food. The pulpy fruits, too, are eaten by the natives as well as by wild and domestic animals.

Among the Pueblo Indians of the Rio Grande Valley, the cucumberlike fruits of the Datil (*Yucca baccata*) are gathered and prepared as food in a variety of forms. The people of San Felipe Pueblo call it "hatyani". They cook the partly matured fruits to form a thick, semi-liquid paste which is dried and stored for winter consumption. Among the Zuni Indians, the fruit is considered a great delicacy. Fruits are pared and eaten raw or boiled, skinned, and made into a conserve. Sometimes the core and seeds are removed, the remaining flesh cooked, made into pats, and dried in the sun. In the early days before cane or beet sugar was available to the Indians, water was added to the boiled flesh of the fruits and the resulting syrup used to sweeten other foods. Sugar rationing may reestablish this use. Indians of the Acoma and Laguna Pueblos bake the fruits until the skin and fiber can be removed, after which the pulp is alternately boiled and stirred. When cooked, the paste is spread out in inch-thick sheets to dry, then rolled into loaves, and put away for the winter. It is eaten as a paste or made into syrup by dissolving in water. The fruit of the Datil (meaning little date) is more fleshy and palatable than that of other yuccas, although *Yucca glauca* is used to a considerable extent by various tribes. The Pimas of southern Arizona boil the *glauca* fruits and dry the paste which is ground into meal and mixed with wheat flour.

Yucca fruits are more extensively eaten by the Navajos, whose reservation covers the "four corners" country of Arizona, New Mexico, Utah, and Colorado, than by any other peoples. They use both *glauca* and the Datil, but prefer the latter. Flowers of both species are eaten by the Mescalero Apache of central New Mexico. When the fruits are ready for gathering, the Navajo organize expeditions of ten days to two weeks duration and collect great quantities of the fruits which they eat both raw and cooked. The bulk of

the harvest is dried and stored for winter. Ripe fruits are baked on the coals or on stones near the fire. When ripe enough for the seeds to fall out, the fruits are dried on flat stones near the fire, then kneaded into cakes and roasted. Pieces are dried in the sun, sprinkled with water, and molded into cakes to be stored. These cakes are crumbled into water and boiled with cornmeal to make gruel.

Perhaps the most publicized use of the yucca is as a shampoo. The roots of several species contain large amounts of saponin and are popular with Indians and Mexicans as a cleanser. After being dug and reduced to small pieces, the roots, known as amole, are used exactly like soap, and are reported as superior to commercial soap for some purposes. This use is the basis of the popular name of Soapweed.

So if the bored traveler looks upon the clumps of grey-green, needle-leaved plants that dot the landscape and stand stiff and awkward against the skyline as useless to man, we can enlighten him. Roots make high-quality soap; stems of the arboreal varieties provide building materials and stock feed; leaves furnish fibers for cordage, basketry, and paint brushes for decorating native pottery; blossoms and fruits are widely gathered as food by man and beast. The entire plant with its evergreen foliage and plume of creamy flowers, adds grace and glamour to many a formal garden. New Mexico has selected the blossom as its floral representative, and Arizona uses the plants in highway landscaping and as a background for state highway markers and traffic guide signs. To round out the extent and variety of yucca uses, it must be added that the blossoms of Our-Lord's-Candle (*Yucca whipplei*) do produce both nectar and pollen which is gathered to some extent by honeybees. This species is found principally in southern California and is relatively restricted in its range.

Although its general appearance is far from lily-like, the yucca is a member of the famous lily family, although it looks much more like a porcupine. The flowers are white tinged with cream or violet, and bell-shaped. Spectacular in the daylight hours, the graceful panicles heavy with the large, creamy blossoms make a glorious display on moonlit nights. For it is at night that the flowers open wide and cast their somewhat insipid fragrance on the desert breeze. This fact explains why yuccas, in general, produce no nectar and make no effort to attract honeybees. Being night-bloomers, they depend upon a nocturnal insect to effect pollination; and it is to lure a creature of the dark hours that their blossoms

(Please turn to page 451)

# THE USE OF BEE STINGS

By W. A. STEPHEN

Bee Division  
Central Experimental Farm

**T**O say that bee venom acts as an operation for sympathectomy by relieving vasoconstriction to joints, muscles and tendons, is telling in technical terms what happens when you are stung by a bee. However, the beneficial results of bee stings can be had without the pain accompanying stinging, and it is these benefits which are described by the many syllabled words of the technician.

Bee stings have been used for ages to treat human ailments, particularly rheumatic, sciatic, neuritic and arthritic. For rheumatism, stings were given on less sensitive regions on arms or legs; for sciatica, the bees were applied to the outside of the thigh; for arthritis, to the joint affected; and for neuritis, at the nerve passages.

Europeans were the first to use bees for the treatment of these ailments, first applying bees directly so that they stung the patient, then incorporating the venom in a salve which is rubbed on the affected part, and more recently a prepared maceration of the poison which is injected with a needle.

When the writer was in Germany in 1938 he saw a drug store window solely occupied with display for "Forapin" an inunction, or salve, preparation of bee venom. An apiary of some hundreds of colonies was maintained in the Alps as a source of supply for bee stings. The Swiss, too, were making a preparation called "apisin" and the British and French were putting up the poison in ampoules for administration with a needle.

In Canada, British made ampoules of bee venom became available in 1933 when a small syndicate was formed in London, Ontario. The organizer was Mr. Shaw Wood, an energetic chemist, who saw possibilities for introducing bee venom to the medical fraternity in Canada. Mr. Wood's father had established the name Ross-Wood in connection with his business firm, so in order to perpetuate it Mr. Wood and his associates adopted the name Ross-Wood's Ltd.

By 1939 the business had grown so that a company was formed and the main office moved to Toronto. At this time Dr. J. W. Miller was engaged to attend to the patients who came direct for treatment.

It was discovered that many complications interfered with bee venom treatment, so it was necessary to in-

stall an X-ray machine. By taking X-ray pictures and getting a complete history of the case, Dr. Miller can tell just whether it will be possible to treat the patient effectively.

Since stimulation of the blood flow facilitates treatment, an ultra short-wave machine was also installed and is used in conjunction with the bee venom.

When a course of treatments is begun the patient comes to the clinic twice a week and it has been found that sixty per cent of the patients are entirely cured in three months' time. At present there are some sixty patients a day being treated at the Toronto clinic and there are about six hundred doctors in Canada administering bee venom treatment. The largest number of these is in western Ontario.

Many patients must be given the equivalent of forty to fifty stings at once, which means a lot of stinging even for a beekeeper. Mr. Wood, therefore, began experiments to see if he couldn't obtain bee venom in Canada instead of importing it from England. He was successful in processing the venom from Canadian bees, so that when applied hypodermically, neither pain nor shock is felt by the patient. Consequently a staff of girls was kept on duty during the summer months, extracting the stingers from live bees and preparing the venom in its dried form.

Mr. Jno. McArthur, well-known beekeeper of the Don Valley, supplies the bees which are chloroformed before their stingers are removed.

Of the forty per cent of the patients who are not cured in ninety days, it is found that there is some complication interfering with the bee venom and short-wave treatments. This may be a source of infection such as bad teeth or diseased tonsils which it is necessary to clear up before the treatment becomes one hundred per cent effective.

Occasionally a beekeeper reports having received a sting which acts differently from any others he has previously received. Generally unaffected by stings he may swell up badly. Mr. Wood has experienced this, himself. Being stung by a bee is quite a common experience with him, but on one occasion he awoke in the morning with an arm so swollen it was necessary to slit the sleeve of his pajamas to get off the coat. Mr. Wood had no explanation for this unless some infection had oc-

curred at the time of being stung. However, it was localized and had entirely disappeared in forty-eight hours' time.

Mr. Wood, while enthusiastic about the bee venom, especially for arthritis, does not consider it the "be all" and "end all" in its treatment, but he has had such success in its administration that he believes it is quite possible to cure the patient in the early stages and in later stages to cause cessation of pain.

Mr. Wood's belief in the curative properties of bee venom is substantiated by the writer's father, an octogenarian, who suffered severely with arthritis in his right arm for some months. At times the pain was so intense that he could not sleep. Weekly treatments by the local doctor were ineffectual. Finally the patient was persuaded to take bee venom treatments. Relief was obtained and for over a year there has been no recurrence of arthritic pains.

Although bee venom administered with a needle is proving effective, Mr. Wood admits that the way a beekeeper gets it, direct from the bee, is the best.

Canada.

— V —

## SAFE WINTER DRIVING

We are in receipt of material from the Safe Winter Driving League calling attention to dangers that lie ahead in winter which may cause one of the worst traffic accident winters in history.

According to Professor Ralph A. Moyer, of Iowa State College, Chairman of the National Safety Council's Committee on winter driving hazards, "a study of recent years shows traffic accident death rates for 36 northern states were 24 to 53 per cent higher in winter than in summer; and a combination of more cars in poor condition, more gas, and more restraint-weary drivers may result in the worst traffic accident winter in history. Drivers in snow belt state must consider dangerous road conditions, should check their brakes, tire chains, windshield wipers, defrosters and headlights."

— V —

## UTAH FIGURES

This year state wide honey production in Utah is given as 3,199,000 lbs. compared with 1,882,355 lbs. in 1944. Utah County was the banner county turning out 502,500 pounds with others running close seconds, Millard, 468,680; Duchene, 408,320; and Uintah, 396,500.

Glen Perrins, Utah.

# LANGUAGE OF THE HONEYBEE EXPRESSED BY SOUNDS

By R. E. NEWELL

THE article by Dr. M. H. Haydak in the September American Bee Journal is an excellent one. Much of the language of the honeybee is by means of actions but I believe this comprises about half of it. Dr. Haydak by his close observance of the activities of the bee has given us a great portrayal of just what each of the dances means. We can learn a great deal about the bee by watching them during the seasons.

I would like to contribute a few lines regarding the other part of the language of the bee. It may not be complete for I do not feel that I know a great deal, for there is so much to learn. However, every thing we learn by observation with bees, gives us greater respect and greater understanding of them.

Perhaps one of the first lessons in the language is the contented hum of the bees when gathering pollen and early nectar in the spring. This is sweet music to a beekeeper and is more song than a language. In an intensive honeyflow this sound may be heard for hundreds of feet from a large apiary, and we may hear it faintly as the bees fly over-head in the field. I believe it serves to guide the bees to the field as the bee is very sensitive to sound, and can follow it to and from the field where the nectar is to be found.

Another clear expression of the bee is the angry hum of a colony that is disturbed. If one drops a hive an inch or two when loading them into trucks or placing on a stand while screened, the bees make a distinct hum that is far from contentment.

This hum is also observed when an inner cover jerks loose that has stuck, or a super or frame snaps on a cool day. The bees start toward the operator in a body and this must be their signal to be on the defense.

In opening a hive that is queenless one readily detects a mournful hum that must be one of sorrow. This is particularly noticeable when a colony is hopelessly queenless and has no eggs to raise a new queen. The bees are spread out over the frames and there is no solid body of bees as in a queen-right colony. Colony activity is listless and the bees entirely lack the co-operative harmony of a normal colony.

The piping of a virgin queen is another distinct sound pleasant to the

ears of the beekeeper but is also part of the bee language. A virgin in flight while mating attracts the drones. It would be difficult indeed for a drone to find the queen if she flew through the air without sound.

During a cold frosty morning when the snow is deep about the hives, one may readily detect a musical hum within the hives as the bees keep up activity to generate heat. If the colony is abnormal due to faulty conditions within the hives, such as a small sick cluster there is an entirely different sound.

A group of package bees that arrive in the North on a cold day are tightly clustered and have a different sound than those that arrive when it is hot. The bees are contented and happy though the temperature may be decidedly cool. If the day is hot the bees have an angry hum, and fly against the screened sides of the cages. When fed a warm syrup the angry sound changes almost instantly to one of contentment.

A colony that is about to emerge from a hive as a swarm shows great activity, the bees run about the front of the hive with considerable speed, and the sound is entirely distinct from any of the other sounds. I have had a swarm start to leave the hive in back of another that I was working upon, and while treating it have noted the sounds as one of pleasure. This activity and sound appears to enervate the whole colony and puts them in the mood for swarming. When the swarm enters a new hive the sound they make is also changed from that of the emerging bees from the hive. A cluster hanging in a tree is almost soundless, yet one may detect a low hum which is indistinct a few feet away.

August 30th I was putting out feed for the chickens near a group of large colonies in the rear of the house, and as I approached the hives I could hear a loud hum entirely distinct from any that I had previously heard. It was not daylight and the hives were barely visible yet the bees were in an uproar and I went up to see what was the trouble. Thousands of bees were running up to the tops of the hives and flying out to the field in clouds. I had two strains in the group and all appeared to show the same activity and sound. I was impressed to say the least so went down to the

lower end of the lot where I had another strain to see if their behavior was like the others. They were all alike in action and in sound and as there was a heavy flow from goldenrod at the time, they must have been able to smell the fresh nectar and were flying out to gather it.

I cannot say that I can talk the language but when working with bees one acquires a certain portion of the language both from their actions and sounds that helps considerable in understanding what is going on within the hives. There are times when it is wise to leave the bees entirely alone. They often tell us by both sound and action that they are not in the mood to be bothered. The angry hum of the guard bee as he comes out to meet us when the honeyflow was stopped, or the guard that protects the honey when we are removing the surplus all have meaning. An understanding of both sounds and actions is a great help in working with bees, and the more we learn, the more we realize that the honey bee is worthy of great respect.

Massachusetts.

— v —

## MORE ATTENTION TO BEES

According to Gove Hambidge, reported generally in the press, we are going to pay more attention to bees in this country from the standpoint of sheer self-protection of agriculture. The simple fact that the fewer the bees the less abundant the crop is just beginning to be realized. It will force us to think about bees in new terms—as a vital link in the chain of crop protection, which we neglect at our peril.

Mr. Hambidge, until recently Coordinator of Research Publication in the Agricultural Research Administration of the U.S.D.A., reviews the background and history of beekeeping to point out that most of our knowledge of bees is comparatively new. Some of our discoveries, he says, are startling in their possibility for doing a better job with bees than even the best of beekeepers have been able to do in the past. Because of our more recent understanding of bee breeding and bee management bees will not only be bred for honey production but also as pollinators.



FRONT TO BE COVERED  
WITH SCREEN FROM BEE  
SHIPPING CASE.

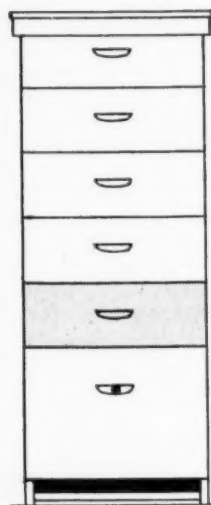
NAIL  
HOLE

CLEATS  
FOR FASTENING TO HIVE

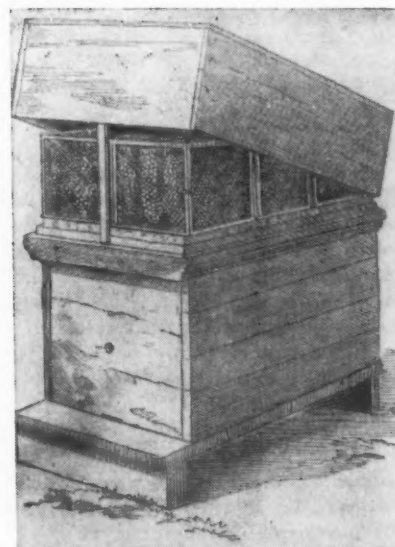
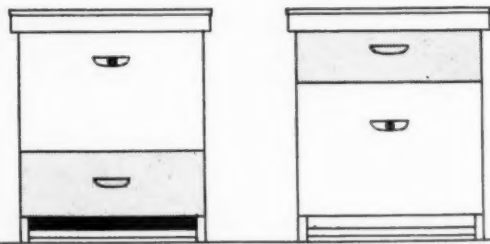
Dimensions (inches):

- Overall width:  $16\frac{3}{4}$ "
- Overall height:  $18\frac{1}{2}$ " OR  $16\frac{1}{2}$ "
- Top panel height:  $8\frac{3}{4}$ "
- Bottom panel height:  $8\frac{3}{4}$ "
- Side panel height:  $1\frac{3}{4}$ "
- Bottom panel width:  $1\frac{3}{4}$ "

DRAFTING DEPARTMENT			
ROYAL OAK SENIOR HIGH SCHOOL			
BEE HIVE SCREEN PORCH			
SCALE 1" = 1'	MAY 16, 1944	HOOR-8 DESK-7	PLATE EXTRA
DON HASKELL			GRADE



## REVERSAL WITH THE MODIFIED DADANT HIVE



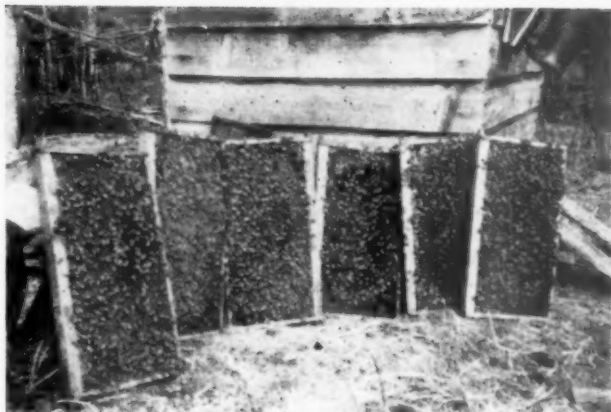
## SIMPLE HIVE— WAY BACK

and flow supers put on top (left). This not only frees the hive for examination but honey in the super is carried up for brood, leaving the super empty for the flow. It is also quite a stimulation.

On page 441 is a picture of a two hive body Modified Dadant. When bees are wintered in the two big bodies, with an abundance of honey and pollen, and reversed in late spring, a good queen will fill both bodies with brood. The large colonies resulting give a decided increase in production.

This Quinby movable comb hive was called "simple" in those days. The old style Dadant hive was modeled after it. The construction is simple, and rough. That tight bottom would be bad now since we use one and a half to two inch deep bottoms. The hive is too small. Those free for all sections are no more. Anyway, it shows that there has been improvement in the hives we use today.



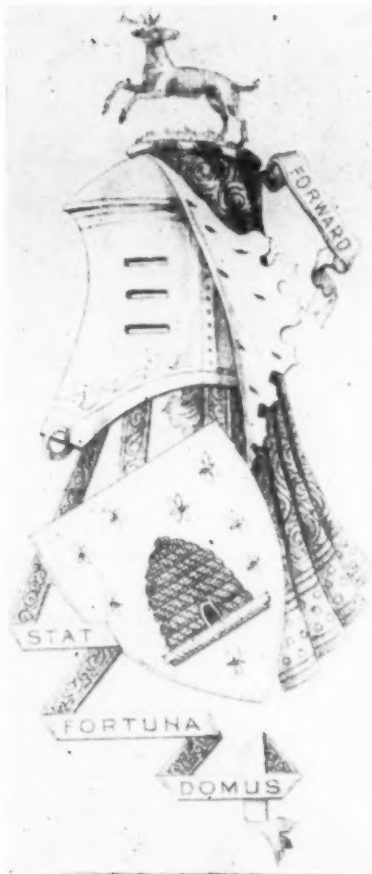


## WINTERING IN ALBERTA

The left shows combs, with bees and brood, of a colony on April 27; at right the bee yard in July. Those who think bees won't winter up here are wrong. In spring they often

gather surplus from dandelion and make big crops from the clovers and alfalfa. They winter in packing cases with abundant stores.

Max Zeise, Alberta.



## COAT OF ARMS

Dr. Beck sent many pictures like this from his large collection of prints that depicted the history of bees through the ages. "Forward, for country, destiny and God." And the bees emphasize it. They are symbols of determination, high endeavor, and Churchill's "blood, sweat and tears." For centuries they furnished wax for industry and sweet for the table. Now, we are beginning to know that they furnish much of our food, by pollination. As Pellett says, "The honeybee is the spark plug of agriculture."



## CACTUS BEEHIVE

E. W. Vogel, of Hollywood, says of this picture "Here, that popular variety of cactus, known as Hens and Chickens, was cleverly planted

to resemble the beehive. This example of ingenuity was seen in Salt Lake City in the Mormon enclosure. The bee hive is a symbol of the Mormon religion."

# FOR THE LADIES

THE calendar, the weather, and the good old Christmas spirit all tell us that another holiday season is at hand. And, as our first peacetime Christmas in too many years, this will be an especially merry one.

Good cheer and good food go hand in hand, and what could be more appropriate as an ambassador of good will than a steamed Cranberry Pudding—hot and fragrant, and oozing rich honey goodness. Make yours a royal celebration by serving this queenly dessert for Christmas dinner.

## Cranberry Pudding

2 cups large cranberries, cut in two and mixed with  $1\frac{1}{2}$  cups flour.  
 $\frac{2}{3}$  cup honey.  
 $\frac{1}{3}$  cup hot water.  
 1 teaspoon soda.  
 $\frac{1}{2}$  teaspoon salt  
 $\frac{1}{2}$  teaspoon baking powder.

Add dry ingredients to the cranberries mixed with the flour. Mix honey and hot water and add. Put in steamer and steam two hours. Serve with the following honey sauce.

## Honey Sauce

$\frac{1}{2}$  cup butter  
 $\frac{2}{3}$  cup honey.  
 2 tablespoons flour  
 2 eggs, slightly beaten  
 $\frac{1}{2}$  cup lemon juice  
 $\frac{1}{2}$  pint whipped cream.

Mix and cook first four ingredients slowly in double boiler until thickened. Remove from fire. Add lemon juice. When cool and ready to serve, fold in whipped cream.

Holiday time usually means baking time, to keep the cookie jar well stocked and a supply of fruit cake on hand for the guests who drop in. It is a time when you want everything to go smoothly. If you have trouble with dark colored baking pans and sheets burning or excessively browning your cakes and cookies before the interior is done, here is something to help remedy the situation. It has been found that dark pans require a lower temperature than those given in standard recipes, which are tested and written up for using the light-colored, shiny types. If the recipe designates at  $350^{\circ}\text{F}$ . temperature, use  $325^{\circ}\text{--}335^{\circ}\text{F}$ . instead and the baked goods will not burn before they are done.

If your family is getting bored with toast and coffee breakfast, you can save your reputation as a good cook by treating them to hot quick breads such as muffins, scones, or coffee cakes, without sacrificing your sleep in the morning. Just mix up the batter and put it in the baking pan the night before. Store well-covered in the refrigerator. Then in the morning, all you have to do is give the batter a few minutes to return to room temperature, and bake it.

Speaking of storing things in the refrigerator, here is good news for those of you who wish that your refrigerator were built like an accordion so that it might more easily adapt itself to the amount of food that should be stored there. No, they aren't making them out of elastic these days, but steps are being taken to conserve the space that is there by instituting square bottles, some of paper, and plastic, as well as glass. Some of the metropolitan areas now have milk and other dairy products distributed in this type of container which can be stored in a minimum of space.

Those fruit cakes and cookies you have cached away for holiday guests will be appreciated twice as much if you accompany them with Honey Holiday Eggnog. It is simple to make and tastes like more.

## Honey Holiday Eggnog

$\frac{1}{4}$  cup honey  
 3 egg yolks  
 $\frac{1}{4}$  teaspoon salt.  
 4 cups whole milk, scalded.  
 $\frac{1}{2}$  teaspoon salt.  
 3 egg whites.  
 $\frac{1}{4}$  cup honey.  
 $\frac{1}{2}$  teaspoon flavoring.

Beat the  $\frac{1}{4}$  cup honey into the egg yolks; add  $\frac{1}{4}$  teaspoon salt and slowly stir in milk. Cook in double boiler until mixture coats spoon, stirring constantly. Cool thoroughly. Add  $\frac{1}{2}$  teaspoon salt to egg whites and beat stiff; add remaining  $\frac{1}{4}$  cup honey; beat well and add to custard with flavoring. Mix thoroughly and chill 4 hours. Pile lightly in punch cups. Sprinkle with fresh grated nutmeg. Serves 6-8.

Onions and butter make bad partners in the refrigerator because fats tend to take up odors and flavors. But this same trait may be turned to good advantage in baking. By adding the flavoring extract directly to the shortening in mixing up a cake or cookies, the flavor will be more fully taken up and better retained than if it is stirred in at the end of the mixing process.

In the ways--and-means department for preventing drooling pans and bowls when pouring liquids or batters from these vessels not designed for pouring, we have this suggestion. Hold a large case knife or spoon against the lip of the bowl or pan and extend it down to whatever you are pouring into so that it forms a sort of chute. The material will follow this chute and won't seep down the sides of the pan.

American Honey Institute,  
 Commercial State Bank Building,  
 Madison, 3, Wisconsin.

# Merry

## HONEY ICE CREAM

Here is a recipe from the Junket Folks, Christian Hansen's Laboratories, Little Falls, New York:

1 rennet tablet, 1 tablespoon cold water, 2 cups light cream,  $\frac{1}{3}$  cup honey. Dissolve the rennet tablet by crushing in cold water. Mix light cream and honey. Warm slowly, stirring constantly. Test a drop on inside of wrist frequently. When comfortably warm, ( $110^{\circ}\text{F}$ ) **not hot**, remove at once from heat. Add dissolved rennet tablet and stir quickly for a few seconds only. Pour at once, **while still liquid**, into refrigerator tray. Do not move until set-about 10 minutes. Place in freezing compartment and freeze until firm. Remove from tray to bowl, break up with fork, and beat with an electric or rotary beater until free from hard lumps but still a thick mush. Finish freezing.

—The Junket Folks.

—V—

## TENNESSEE MARKET BULLETIN

This is the official publication of the D. of A. of Tennessee, copy of which has just been received from John M. Amos, State Apiarist and Assistant State Entomologist, who is now in charge of beekeeping work, succeeding George Rea. There is an interesting department, "Bee Buzzing," which should be of interest to every Tennessee beekeeper. Copies of the Tennessee market bulletin may be obtained twice monthly by request from The Department of Agriculture, 411 State Office Building, Nashville, Tennessee.

AMERICAN BEE JOURNAL

## Christmas

### DDT, THE NEW INSECTICIDE

WE have had but little to say about the new insecticide because we know so little about it. Rather startling claims are made for it as a means of insect control. It has been compared to the atomic bomb as an instrument for good or evil depending upon how it is used.

There are numerous reports of complete success in ridding dairy barns of flies, of freeing domestic animals of lice and fleas and removing the torment of mosquitoes from homes and camps.

At the same time it is pointed out that useful insects are also killed and caution is urged upon those who make use of it. Now that it is available for use with less restrictions than formerly the beekeeper has reason to fear the consequences when irresponsible persons can buy it.

Properly used DDT promises much in the control of insect pests, especially the disease carriers such as flies and mosquitoes. When used for the destruction of insects in orchards and gardens it may prove even more destructive to honeybees than the arsenates which have already caused such extensive losses to the honey producer.

Fortunately those who are engaged in research with DDT are well aware of this danger and are seeking ways and means of making the most of it while providing protection to the bees. Reports thus far are that it has been used in such a way as to cause but little loss to bees. Indications are that when crops are treated to avoid application to open blossoms, DDT may cause less damage to beekeepers than the arsenicals now in common use.

### THE FEDERATION

THE National Federation of State Beekeepers' Associations has at last completed its organization with a secretary who will devote his undivided attention to its work. Prof. V. G. Milum has carried on with the understanding that he would be relieved as soon as a permanent secretary could be selected. He has been highly commended for the way in which he has handled the business of the office which is too heavy to continue in addition to his duties as a college professor.

Glenn O. Jones, of Atlantic, Iowa, who took over the office on September first is well equipped for the work and will prove to be a capable and popular official. Prior to the first world war Jones was connected with the Atlantic National Bank which he left to enter military service. In recent years he has handled the financial department in the local post-office. Although bees have been a side line with him, he is a practical honey producer and well informed concerning the problems of the industry.

As president of the Iowa Beekeepers Association he has shown marked executive ability and understanding of the needs of the industry in its public relations.

Many problems will confront the Federation from time to time. Already a start has been made in solving the bee pasture problem by means of cooperation with agronomists, horticulturists and soil conservationists. The loss of bees by spray poison is very serious in many localities and an organized effort is under way to find a solution. A central office with a secretary constantly occupied with coordinating the efforts of the various committees will be able to make substantial progress and we anticipate good results from the program now under way.

### ORGANIZED EFFORT

THE time has passed when one man can accomplish much without the help of others. Unorganized groups suffer from competition and must sell their output in a bear market. The beekeepers have long suffered from low prices, poor distribution and strong competition because they are too individualistic in their outlook.

Honey and butter sold at about the same price for half a century and both were faced with new competition at about the same time. The

dairymen organized and fought substitutes successfully. As a result dairymen have remained prosperous with a relatively high price for their products in spite of the fact that margarine can be produced at less cost.

The beekeepers on the other hand did little to prevent the loss of their markets to corn syrup and the price of honey fell lower and lower until there was little attraction in honey production as a business venture. Instead of fighting competing products they thought only of underselling each other.

War demands have brought new prosperity to the honey producer and he should profit by his former experience. Every man who has a stake in the honey markets should support both the American Honey Institute and the National Federation for with sufficient funds these agencies can accomplish much to maintain profitable markets for our products.

Too many men who occupy good salaried positions in the service of the industry fail to lend their financial support. They should remember that they depend for their livelihood on service to the beekeepers and should be as much interested in efficient organization as those whose income is from the direct sale of honey.

A prosperous industry is possible only when all groups work together and now is the time to anticipate the dangers that lie ahead. Let everybody boost.

— V —

### BIG HIVES, AMPLE STORES

THE season of 1945 gave a splendid demonstration of the arguments of those who have long contended for large hives and ample stores. The unfavorable spring, which prevented the usual harvest from dandelion and fruit bloom, caused a heavy drain on reserve stores and colonies which were poorly supplied met with disaster.

In the experimental apiary which the American Bee Journal maintains in connection with the honey plant garden the bees are wintered in two-story Modified Dadant hives. This permits leaving about 100 pounds of honey and pollen for winter stores.

Bees in the neighborhood, which were wintered in the usual way were so short of stores during late spring that they were in poor condition at start of the honeyflow. As a result they were able to build up only on the honeyflow and harvested a small

(Please turn to page 450)



# How to Do It



## HOW TO USE A WIRE MUFF

This has been shown before and created interest. It is useful to take attendants out of queen cages, clip queens, mark queens, change queens from one cage to another and for similar work; out of doors when weather is suitable, inside to equal advantage.

The muffle is made of screen wire in a roll of suitable size, fastened in a seam at the ends. Cloth sleeves extend over the arms while the work is being done. We have several of these muffs available when needed.

— V —

## KEEPING WEEDS DOWN

Take some stove oil in a hand sprayer and spray it on the weeds around the hives.

Douglas W. Decker,  
Washington.

— V —

## SAFETY FIRST

When operating a bench saw or any power tool apt to throw materials toward the operator, it should be a rule that the power shall not be turned on unless the operator wears shatter-proof goggles, which cost but little.

William W. Wicht,  
Mississippi.

— V —

## FASTENING FOUNDATION SECURELY

It is surprising how many risk flimsy attachment of foundation in frames and sections. The founda-

tion must be secure before giving it to the bees. I use melted wax to secure the foundation. It has given me fewer mishaps. I am careful to use the minimum amount of wax at the proper temperature, not quite so hot as to impair or melt the foundation, but yet sufficiently warm to do a solid fastening job with an extra small stream. The wax used in sections and in frames for chunk honey should be selected for its light color and clearness.

W. P. Kinard, Mississippi.

— V —

## MARKING UNSUITABLE COMBS

This is readily accomplished with the use of school crayons, or keel used in marking lumber or glass, in blue or red color. A scraping stroke of the hive tool leaves the wood of the top bar free of wax so that it will accept the mark. Later these undesirable combs may be assembled in supers and then rendered.

J. H. Sturdevant, Nebraska.

— V —

## EQUALIZING WITH BEES

Bees may be taken from one yard to another to give to the weaker colonies that need some help and taken from extra strong colonies that can spare them. A carrying box may be made by tacking an empty hive body on an inner cover with the hole closed. Shake in the bees. Take another inner cover with the hole closed, nail it over the hive. When you get to the yard where they are

to be used, dump the bees in front of the hive which needed them. The bees will not suffocate in the box, they get sufficient air.

John J. Vargo, Illinois.

— V —

## CEMENT BLOCK HIVE STANDS

For economical hive stands that will not rot, rust or shelter rodents or pests, use cement building blocks. Only two blocks are needed to keep the hive off the ground.

Robert S. Turner, Iowa.

— V —

## LAYING WORKERS

Some writers continue to tell us that the way to get rid of laying workers is to shake them out in the grass away from the hive and then to requeen. The notion has been handed down from time immemorial, like planting "in the moon." Is there any evidence to show that laying workers will not fly back home or that they really are the ones that kill the queen? It is well known that old bees do not take kindly to a strange queen and all bees in a laying worker colony are old bees. They are almost sure to kill any queen introduced whether shaken out or not. For colonies run for extracted honey the best way is to unite them with a strong queenright colony, using the newspaper plan. Laying workers have little if any value as honey gatherers and where one has only comb honey hives their best and surest cure is a teaspoonful of cyanogas placed in the entrance of the hive.

E. S. Miller, Indiana

— V —

## LABELING JARS

After trying many ways of applying labels to jars I finally settled on the use of the common moistener used in offices (a small container with a roller attached).

Fill the container two-thirds full of label paste, place the container in a small pan of water which in turn is placed over a small burner. Adjust the burner so that when the roller is turned a thin layer of warm paste adheres.

A few seconds before rubbing each end and the middle of the label across the roller, spin the roller around at least one turn to give the surplus paste time to run off, leaving a thin, even layer. This is a secret of fast labeling. If there is too much paste on the roller, the surplus will get on the label which means loss of time in wiping it off the jar. Immediately following the pasting of each label, the roller is given another turn and this time there will be no delay in waiting for the paste to form a

## A NEW "HOW TO DO IT"

Beginning January first a change is planned for "How To Do It." This feature has been quite popular and we get many good suggestions. Each one used has brought a three month subscription extension. With January let's try a contest for an illustrated "How To Do It" item. The item shown on opposite page, "How to Use a Wire Muff" shows what we mean. The picture must be clear and it must illustrate the "How To Do it" story. The story itself should be short and to the point. We will take what we consider to be the best of the pictures received to use in succeeding issues and will pay \$5 for each one published. See what you can do to find useful items from your own experience for this new illustrated "How To Do It."

thin layer. By adjusting the burner under the container one should soon have the paste to the right consistency for quick labeling.

Charles D. Neel, Illinois.

— V —

## FEEDING SCRAP COMBS OF HONEY

Simply make an enlarged Boardman feeder. Place a hive or any bee-tight box with a good lid in front, to one side of the entrance to the colony to be fed. Connect it with a tunnel made of wood or metal to the colony to be fed. Make sure you have it bee-tight to prevent robbing. It will work perfect and bees will carry honey up into their own hive. Be sure not to smear or spill honey on the outside or on the ground. Add feed only in early morning or night when bees are not flying. A device of this sort will probably also work on wet extracting combs.

William W. Wicht,  
Mississippi.

— V —

## ENTRANCE BLOCKS

Use scrap pieces of lumber to make regular entrance blocks. If you have thin scraps, make them a little wider than the entrance and nail in place with two small nails, partly driven in. Be sure to cut an opening not more than  $\frac{3}{4}$  inch wide which will prevent the entrance of mice.

William W. Wicht,  
Mississippi.

— V —

## SMALL HIVE FOR SWARMS

Many beekeepers often hear of a swarm hanging on a tree or some

# American Honey Institute

Commercial State Bank Building, Madison 3, Wisconsin

A cosy fireside, sleighbells ringing, Christmas songs, and lighted Christmas trees call attention again to the happiest time of the year. This first peace-time Christmas in four years, bringing much hoped for reunions, will be one to be long remembered. The Institute adds its greetings to wish you Christmas Joy and Happiness. May the New Year be a successful honey year, with all larders filled with honey and honey to fill all larders.

— V —

Home Economists throughout the country use the Institute's leaflets and "Old Favorite Honey Recipes." One Home Economist recently purchased several hundred copies of "Old Favorite Honey Recipes" and several hundred copies of "Honey Recipes" to use in her demonstration work. From one state alone, the Institute received 42 requests for literature from Home Economists in one month. Here are some excerpts from their letters:

"Yesterday I gave a talk to homemakers and 4-H members on sugarless cookery and they wanted to know more about using honey."

"We have used honey in many demonstrations during the canning season."

"Many of the homemakers in the county have purchased honey but lack information on how to utilize it. I am interested in information concerning canning, preserving, and cooking with honey."

"Please send me 300 each of your pamphlets 'Jellies and Marmalades made with Honey' and 'Use Honey in Canning and Preserving.' I would like to use these as inclosures with my next News Letter going to homemakers in my county."

Other requests say:

"Would it be possible to place my name on your mailing list for Honey Literature? We are anxious to receive food material for newspaper food columns and will appreciate receiving copies such as 'Jellies and Marmalades made with Honey' and 'A Sweet Combination, Honey and Cereals'."

likely place at a neighbor's several miles away. Instead of lugging a standard hive to get the swarm I find a standard apple box will hold about eight brood combs just as though the box were made for the purpose. I remodeled the bottom, fixed a thin board with a rim around

"I would be very glad to have a copy of 'Old Favorite Honey Recipes' as we often have requests for the use of honey in various phases of cooking and baking."

— V —

More beekeepers are realizing the benefits of membership in the Institute as evidenced by the fact that 70 new memberships were received during the last two months. There is still time to send in a contribution for 1945 membership. The annual directory of the Institute goes to press January 1. If you wish a listing in the directory, please have your contribution in before December 31.

— V —

So many orders for the honey calendars have been received that a second printing has been necessary. The calendars are an every day honey reminder and make excellent Christmas or New Years favors. Price 50c per 100—and sorry, no more name imprinting.

— V —

A new leaflet, "A Honey of a Chocolate Cake, by the Mix-Easy Method" will be mailed to members in the next bulletin.

— V —

Mrs. Grace had a broadcast entitled "Honey Puddings are Good Desserts" on November 15, and on December 5, will broadcast "Honey Candies for Christmas."

— V —

Among the recent callers at the Institute were: Martha Logan, Director of Home Economics, Swift & Company, Chicago; Miss Agnes Reaser, Director of Home Economics, Cereal Institute, Chicago; Mrs. Ella Liner Lambert, Director of Home Economics, Milwaukee Gas & Light Company; Misses Gertrude Berg and Mary Underhill, Milwaukee Gas & Light Company; Messrs. Harley Walker, Sidney, Illinois; Keith Wilson, Tolono, Illinois; A. J. Smith, Palos Park, Illinois; L. P. Baker, Glencoe, Illinois; Roswell Beardsley, Baraboo, Wisconsin; Mr. and Mrs. Geo. De Koeper, Baraboo, Wisconsin; Major Steven Parks, Watertown, Wisconsin and Major Lyons and Professor and Mrs. Oskar Hagen, Madison, Wisconsin.

for the top, made an entrance. A little strip put around the top of the box made it the right height for a frame. The entire box can be carried under the arm. It is just the thing to get a swarm away from home.

Henry C. Hoffman,  
Pennsylvania.

## Northern California Package Bees—Queens

### ITALIANS ONLY

2-lb. package with queen	\$4.00
3-lb. package with queen	5.00
Queens, each	\$1.25

Add 25c per package for orders less than 25 packages.

### HOMER E. PARK

PALO CEDRO, Shasta County, CALIF.

### MAGIC ELECTRIC WELDER

110 volt AC-DC; welds, brazes, solders, cuts all metals; easy to use; full directions. Complete with power unit, flame and metallic arc attachments, carbons, fluxes, rods, mask. Used by the navy. Guaranteed for one year. Splendid for farm use. Only \$19.95.

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### ● THRIFTY QUEENS ●

Combless Packages and Queens  
THREE-BANDED ITALIANS ONLY  
Write for 1946 prices and open dates

**W. J. FOREHAND & SONS**  
FORT DEPOSIT, ALABAMA  
Breeders Since 1892

### The BEEKEEPERS ITEM

The Southern beekeepers' own magazine, but read by studious honey producers everywhere. With the American Bee Journal makes a combination that covers the beekeeping field.

Send \$1.75 and get Both Magazines for a year  
BEEKEEPERS ITEM, San Antonio, Texas

## A Merry Christmas and Happy New Year

to every one and thanks a million to our customers.

We are ready to repeat our service in '46.

**B. A. ANDERSON & CO.**  
OPP, ALABAMA

### Italian Bees and Queens

2-lb. pkg. with queen	\$3.50
3-lb. pkg. with queen	4.50
4-lb. pkg. with queen	5.50

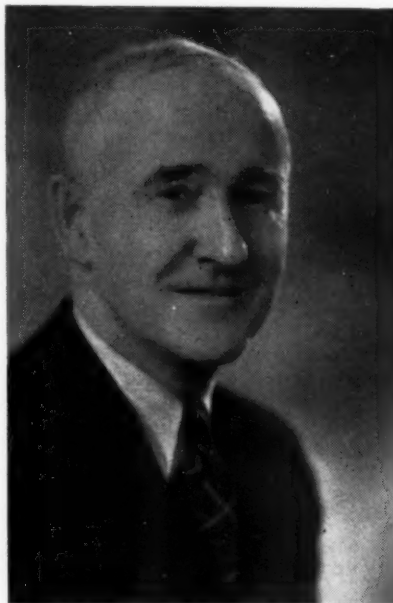
Health Certificate and safe arrival guaranteed. 20% deposit on booking orders.

### CLOVER BEE FARM

HESSMER, LOUISIANA

American Bee Journal Classified Ads  
Bring Satisfactory Results.

## Meetings and Events



L. T. Floyd Retires

The retirement of L. T. Floyd from the post of Provincial Apiarist of Manitoba marks the passing from public life of a man recognized as an institution in the agricultural life of the province. When he came to Manitoba twenty-four years ago as the first provincial apiarist, there was no recognized honey industry in the province. Honey had been bought for consumption from the east and other parts of the Dominion but Mr. Floyd changed all that. He caused Manitoba honey to be sought everywhere as choice and desirable, establishing a permanent industry in the province.

He pioneered many improvements: registration of beekeepers, inspection, grading, organization. His office in the Legislative Building was a favorite place for beekeepers who needed advice, or bees, or queens; or service.

In all these years he also maintained an apiary of his own at Austin, which now will claim his whole attention. He carries with him into retirement the good wishes of more than 4000 beekeepers who found in him a good friend and an adviser when they needed help.

— V —

### North Dakota—December 14—Fargo

The North Dakota Beekeepers' Association will hold its annual meeting in room 203, Francis Hall at the North Dakota Agricultural College, Fargo, on December 14. The meeting will begin at 10:00 A. M.

A program to consider problems of particular interest to beekeepers is in the course of preparation. A good attendance of beekeepers from North Dakota and the adjoining area of Minnesota is anticipated.

Arvid Benson, Sec'y-Treas.

— V —

### New Rochelle (N. Y.) December 16

The New Rochelle Beekeepers Association will hold a joint Christmas Party and meeting on Sunday, December 16th at 2:30 P. M., at the home of Mr. and Mrs. Alfred B. Stoddard, 20 Whitfield Terrace, New Rochelle, N. Y. We expect to have as guest speaker for this occasion a well known entomologist.

Gifts for all will be distributed by Santa Claus who will be present to greet all members and their guests. Come prepared to spend an enjoyable as well as educational afternoon. Refreshments will be served.

A. M. Barnes, Ass't. Sec'y.

— V —

### From the Federation

From a recent report of the Production and Marketing Administration comes the figures of 225,779,000 pounds as the estimated crop of honey for 1945, an increase of sixteen per cent over the five year average and an increase of twenty per cent over last year, with the number of colonies up twenty-four per cent from 1939, a substantial increase in beekeepers.

We also have a rapidly growing consciousness on the part of the general public of the service rendered by honeybees in the pollination of crops and the subsequent desire to cooperate with beekeepers. We have put honey on the table in uncounted homes during this period and made it a common ingredient in cooking and canning. Now is the time to insure that we continue to go forward; now is the time to encourage and assist the new beekeeper; now is the time to be sure that honey is offered in clean, attractive packages; now is the time to be sure that honey is always available; now is the time to assist the grower in his pollination problems. If we do these things the industry will grow for many years.

Our Research Committee has recently been expanded to permit thorough attention to the problems coming before it. Forming the Committee are:

Ralph W. Barnes, Oakland, Nebraska, Chairman; Newman I. Lyle,



Sheldon, Iowa; J. W. Newton, Baton Rouge, Louisiana; E. J. Dyce, Ithaca, New York; Roy Grout, Hamilton, Illinois; R. L. Parker, Manhattan, Kansas; Howard Potter, Ithaca, Michigan; C. L. Farrar, Madison, Wisconsin, Advisory.

In a recent letter Mr. Barnes makes some comments on the possible work of the Committee and a part of that letter follows: "The Federation should, I believe, take steps toward getting out printed matter that can be distributed by the members to beekeepers in general and special ones that can be sent to farmers and seed producers. To give an example, there is a real need to make the value of sweet clover as a legume crop more well known. The need of a better system of handling this plant in farm management so as to obtain better results for the farmer, and to bring out the fact that the general farmer can make seed production pay big dividends in his regular crop improvement program. The work done at the agricultural colleges on legume plants and seed production could be brought to the attention of farm magazines and farmers. The beekeeping industry could make profitable use of this type of propaganda and also bring out the value of bees to the national economy as well. Personally I would like to have several thousand copies of such a pamphlet every year to mail to all farmers in our territory.

We must branch out and take our rightful place in the national farm program. Beekeepers meetings should not be so self-centered as they have been in the past.

Ralph W. Barnes.

— V —



Federation Secretary Not a Theorist

Glenn Jones stands beside a colony with this year's crop. He likes re-

## Pettit's Package Bees and Queens

ARRANGE PROMPTLY FOR YOUR 1946 DELIVERY DATES

2-lb. package with  
queen \$3.85

3-lb. package with  
queen \$4.85

We will accept only those orders we can feel confident of filling promptly and preferred dates are rapidly being taken.

## GIRARDEAU APIARIES : Tifton, Ga.

(SUCCESSORS TO MORLEY PETTIT)

J. H. Girardeau, Jr., Manager

# YORK'S Package Bees and Queens For 1946

## QUALITY BRED ITALIANS

No Change in Price For Coming Season

### PACKAGE BEES WITH YOUNG LAYING QUEENS

Quantity	1 to 2	3 to 27	30 to 96	99 up
2-lb. pkgs.	4.25 each	\$4.10 each	\$3.95 each	\$3.75 each
3-lb. pkgs.	5.25 each	5.10 each	4.95 each	4.75 each
Extra Queen	1.30 each	1.25 each	1.25 each	1.25 each

Queenless packages, deduct \$1.10 per package

Booking orders now for 1946, same terms and price. We thank our customers for their patronage and will be prepared to serve you better with highest quality the coming season. A large number of buyers have already placed orders for coming season and if you have not done so, we urge you do so without delay for better choice of shipping dates. There are every indication of an extra heavy demand. Order direct from this ad and save time.

## YORK BEE COMPANY

JESUP, GEORGIA, U. S. A.

(The Universal Apiaries)

## Bees SUNKIST Queens ITALIAN

Orders for Spring 1946 are coming in fast. We will not accept more orders than we can reasonably expect to fill. Order early and be sure of your shipping date. We offer three banded Italians, live delivery, health certificate, satisfaction. 10 per cent books your order, balance 10 days before shipping.

PRICES	1-25	Queens	2-Lb. Pkg.	3-Lb. Pkg.
	25 Up	\$1.10	\$3.50	\$4.50
		1.00	3.40	4.40

SUNKIST BEE COMPANY, Route 2, Box 9, Houma, La.

## PERFORMANCE TELLS THE STORY

Daughter queens of this "DR" strain of bees which has been bred continuously for resistance to A.F.B. is giving satisfaction to an increased number of producers in every honey producing state. Booking orders for 1946. Write for shipping dates.

## IOWA BEEKEEPERS ASSOCIATION

STATE HOUSE, DES MOINES 19, IOWA

# Got a Hobby?

Keep up with the latest developments in your field? Here's a group of magazines that specialize in a particular subject! You'll be interested in at least one of these magazines . . . and you have the assurance that the articles are written by people who know. Send in your subscriptions today!

HORSES	Per Year	Sample
Spokesman and Harness World, m. (3 yrs., \$2.00)	\$1.00	\$ .10
Rider and Driver, monthly, horses, sports, pleasure	3.50	.50
Thoroughbred (Horse) Record, weekly	4.00	.10
DAIRYING	Per Year	
Dairy Farmers Digest, monthly	\$1.00	
FRUIT		
Better Fruit, monthly	1.00	
Eastern Fruit Grower, monthly	1.00	
BEE MAGAZINES		
Beekeeper's Item	1.00	
American Bee Journal	1.00	
FARMING		
The Country Book, quarterly	1.00	
Farmers' Digest, monthly	2.00	
LIVESTOCK		
Coastal Cattlemen, monthly	1.00	
American Cattle Producer	1.00	
Florida Cattleman	1.00	
The Sheepman	1.00	
Plantation Stockman, monthly	2.00	
Pacific Stockman, monthly	1.00	
Arizona Stockman, monthly	1.50	
PIGEONS		
American Pigeon Journal, squab—fancy	1.50	
Pigeon News, fancy only	1.50	
POULTRY		
Cackle and Crow, The Poultry-paper	1.00	
Pacific Poultryman	.50	
Progressive Poultryman, monthly	1.00	
RABBITS		
Small Stock (rabbits, caviae exclusively)	1.00	
American Rabbit Journal	1.00	
California Rabbits, monthly	1.00	
Rabbit News, (Calif.) monthly	1.00	
International Commercial Rabbit Journal, monthly	1.00	
OTHER SPECIALTIES		
The Soybean Digest	1.50	
New Agriculture (sugar beets only)	2.00	
Small Commercial Animals and Fowls	.50	
Co-operative (Farmers) Digest, monthly	2.00	
Modern Game Breeding, monthly, pheasants, wild waterfowl, etc.	3.00	
Canary Journal, monthly	2.00	
Canary World, monthly	1.25	
Good Health, monthly	1.00	
Frontiers, the magazine of natural history, 5 issues	1.00	
Black Fox Magazine, fox, mink, m.	2.00	

All magazines are monthlies except where otherwise noted; prices are for one full year. Satisfaction guaranteed. All orders are handled promptly and acknowledge. Rush your subscriptions today. Remit in any manner convenient to you.

SEND FOR FREE CATALOG

## Magazine Mart

DEPT. BJ PLANT CITY, FLA.

Sample Copies at Single Copy Prices

To assure yourself of obtaining the best of supplies, read the ads in ABJ.

sistant stock, the double Modified system, with shallow supers. And high producers. It is thrilling to see the propolis fingered beekeeper again assuming leadership and mastheading his own problems. May this tribe increase!

— V —



Abushady to America

We have just learned that Mr. A. Z. Abushady, formerly editor of the Bee World and a prominent official and doctor in Cairo during the past few years, has decided to come to America with his family.

Mr. Abushady anticipates being able to get transportation so that he may arrive in the United States about the first of the 1946 year. Undoubtedly he will establish himself in his chosen profession, as he comes highly recommended for his scientific knowledge in medical lines.

In this connection, we have just learned that the "Bee Kingdom League" Association of beekeepers of Egypt, have chosen Mr. M. G. Dadant of the American Bee Journal as their honorary president for the year of 1946. This is a fine honor and one which is appreciated by the editors of this magazine.

— V —

### Washington News

By Roy H. Herr, Regional Representative, Region IV.

On page 435 is an account of a meeting on October 10 of the National Federation with others, before representatives of the Bureau of the Budget asking for \$500,000 for legume seed research. This meeting was in the Statler Hotel and, of course, received the support of the Federation. We will probably not know before January what has been included in the budget for a legume and forage crop program when the

President presents his budget to Congress. Hearings will take place first in the House. Very likely this portion of the budget can then go on right through to the end.

— V —

### Federation Annual Meeting— Indianapolis—January 15-17

After many delays and disappointments it is just now possible to announce a definite time and place for the annual meeting of this Federation and allied groups.

Chicago was the choice of the greater number, but no accommodations were available there until March and then only in a limited way.

A central location seemed highly necessary and we will meet in the Hotel Severin, Indianapolis, Indiana, on January 15-16-17.

Room reservations should be made direct with Hotel Severin at an early date, stating the requirements and mentioning that your visit is in connection with the meeting of our organization.

All rooms have private bath and are rated as follows:

Single room—1 person \$2.75 to \$3.50.

One double bed for 2 persons, \$4.50 to \$5.00.

Twin beds for two person, \$6.00 to \$7.00.

The program is being put in final form and will appear complete in the December News Letter and in the January issue of the bee magazines.

Make your reservations early and watch for the complete program.

— V —

### Southern Federation with Georgia and Florida, Valdosta— December 13-14.

The Southern Federation meets with the Georgia Association and Florida Association at Valdosta on December 13 and 14. The entire program is not complete as we go to press. However, James I. Hambleton, Mrs. Grace, E. LeSturgeon, M. G. Dadant, Dr. Phillips, Dr. George King, M. J. Deyell, Arthur Brown, Glenn O. Jones, Harold Clay and others are on the program. Elaborate plans are under way for entertainment. Barbecue or fish fry, free. The Hotel Daniel Ashley is headquarters. Reservations are in charge of G. G. Puett, Hahira, Georgia.

— V —

### Illinois Association

Federation Secretary Jones reports the Illinois Association meeting at Springfield, on November 9 and 10. It was the first appearance at an Association meeting as official secretary of the Federation. Cooperation and support and encouragement for the Federation at this meeting were

AMERICAN BEE JOURNAL

very encouraging and looked well for the future.

— V —

**Union Agricultural Meeting**  
Horticultural Hall, Worcester,  
Massachusetts

#### BEEKEEPING SECTION

Thursday, January 9, 1946

Dr. Burton N. Gates, Chief Apiary  
Inspector Massachusetts Department  
of Agriculture, Presiding.

Program—2:00 P. M.

Fred E. Cole, Commissioner, Massa-  
chusetts Department of Agriculture.  
Work of the Alabama State  
Apiarist, Lt. Harry H. Laidlow,  
First Service Command Entomologist  
Boston, Massachusetts.

Winter Meeting, Massachusetts  
Federation of Beekeepers' Associ-  
ations.

W. E. Copeland will show colored  
motion pictures of bees and bee-  
keeping, largely of 1945.

Questions from the audience will  
be answered by the speakers.

All persons interested are cordially  
invited.

— V —

**Oregon, Portland-December 7-8**

The annual meeting of the Oregon  
Association will be held in the Public  
Service Building, Portland, Friday  
and Saturday, December 7 and 8.  
A new feature of this year's con-  
vention, in addition to the return to  
the two-day sessions following the  
war, will be the covering of different  
phases of local beekeeping problems  
by the members who will be assigned  
their parts by the president. A ban-  
quet will be a feature of Friday even-  
ing.

John D. Burt, Sec'y.

— V —

#### About Valdosta

Valdosta, Georgia brings pleasant  
memories to hundreds of beekeepers  
and their wives who attended the  
Southern Conference and National  
Convention many years ago. Ever  
since, beekeepers have been saying,  
"let's go back to Valdosta." Now  
we have the chance by attending the  
joint meeting of the Southern Feder-  
ation, the Georgia and the Florida  
associations, as announced elsewhere  
in this department.

Cooperation of the Chamber of Com-  
merce and Civic Organizations will  
put on a convention that will be worth  
while attending and one you will  
never forget. Special attractions  
and features are planned not common-  
ly seen at conventions. December is  
a fine month in the South; plan a  
vacation with your family; spend a  
few days with old friends in the halls  
of hospitality in Valdosta.

A. D. Hiatt.

(Continued on page 451)

DECEMBER, 1945

## SEASON'S GREETINGS—Many thanks for past season's fine patronage.

### PACKAGE BEES FOR SPRING 1946

Progeny-Test 3-Banded Italian Strain. Also, Charles Mrar's and other reliable breeders' strains of high quality Daughters of Stock Bred for Resistance.

Quantity	2-Lb. Pkg. with Queen	3-Lb. Pkg. with Queen	Queens
1-9	\$3.70	\$4.70	\$1.10
10-24	3.60	4.60	1.05
25-99	3.55	4.55	1.00
100 and up	3.45	4.45	.95

Dependable Quality and Service.

**GARON BEE COMPANY** Donaldsonville, La.

## SOYBEAN FLOUR

### EXPPELLER PROCESS

For use in supplementing natural pollen for spring buildup

5 pound package, postpaid east of Rockies	\$1.00
5 pound package, postpaid west of Rockies	1.25
100 pound bag, f.o.b. mill, Decatur	5.90
500 pounds or more, f.o.b. mill, Decatur, per hundred	5.65
2000 pounds or more, f.o.b. mill, Decatur, per hundred	5.40
Carload, f.o.b. mill Decatur, per hundred	5.15

Cash with order, C.O.D. Instructions for mixing with all orders.

**SHELLABARGER SOYBEAN MILLS, Decatur 30, Ill.**

## BETTER BRED QUEENS—THREE BANDED ITALIANS

We appreciate your business in the past and solicit your future business on the merits of our service and quality. Prices to be the same as last year.

**CALVERT APIARIES**

**Calvert, Alabama**

## Customers and Friends:

We have just gone through the most trying season of our experience;

We are preparing for 1946 with firm faith and conviction that the  
Future holds Peace and Prosperity for all deserving People;

We are booking orders for Package Bees and Dependable Three-  
Banded Italian Queens of a strain selected for their high production and  
fine qualities; all of my own production. Prices as follows:

Quantity	1-23	24-98	99 Up
2-LB. PACKAGE WITH QUEEN	\$3.85	\$3.70	\$3.50
3-LB. PACKAGE WITH QUEEN	4.85	4.70	4.50
QUEENS ONLY	1.25	1.20	1.15

(For Queenless Packages, Deduct Prices of Queen)

All Packages shipped Express Collect.

**Terms:** \$1.00 per package will book your order, and balance to be paid  
before your shipping date. Please order your packages in multiples of  
three. **Live Delivery and Satisfaction Guaranteed.**

**JOHN C. HOGG : Tifton, Ga.**

## Gaspard's Quality Italian Queens and Package Bees

We are now booking orders for the Spring  
of 1946. Only 20% with order balance at  
shipping time. Prices as follows:

Comb packages with one frame of brood and honey, add \$1.50 per package.

**J. H. GASPARD : Hessmer, Louisiana**

**The American Bee Journal Classified Ads Bring Results**



## JENSEN'S Package Bees & Queens For 1946

Orders being booked fast now, and may we caution you against waiting too late to place your orders for package bees and queens. Naturally we wish to take care of our regular customers first, but so many new names (both inquiries and orders) are coming in that we fear we will be sold short far in advance of the usual time.

Quality bees and queens together with dependable service find ready acceptance among successful honey producers. Poor stock comes high at any price. 31 years of constant production experience plus honest dealings have established our reputation.

### Prices for 1946

	Queens	2-lb. pkgs. with queens	3-lb. pkgs. with queens
1-24	\$1.25	\$4.00	\$5.10
25-99	1.15	3.75	4.80
100 up	1.05	3.50	4.50

**"Magnolia State" Strain Pure Italians Only**  
**JENSEN'S APIARIES : Macon, Miss.**

### QUEENS, ITALIANS, Package Bees

The following prices will be effective until further notice on our queens and packages for spring of 1946

Quantity	Queens	2-Lb. Package	3-Lb. Package
1-24	\$1.25	\$4.00	\$5.10
25-99	1.15	3.75	4.80
100 up	1.05	3.50	4.50

**Bessonnet Bee Company : Donaldsonville, La.**

### BE PREPARED FOR THE 1946 SEASON. Buy Your Supplies NOW. Prompt Shipment

Because of shortages in 1945 many beekeepers were disappointed on delivery of supplies. Don't let that happen to you in 1946—ORDER NOW WHILE SUPPLIES ARE AVAILABLE.

No. 14—4-Frame Non-Reversible Honey Extractor (hand power)	\$14.75
10-Frame Size Wire Queen Excluders, Wood Bound, 5 or more, each	.80
Wire Face Bee Veils, each	.80
Bee Escapes, each	.12
Smokers, 4x7, each	1.00
2 Inch Hive Staples (for moving bees) per lb.	.30
5—10-Frame, 1 Story Metal Covered Hives	14.75
100 Hoffman Brood Frames, per 100	5.05
1 lb. Glass Honey Jars, packed 2 dozen, per case	1.00
2 lb. Glass Honey Jars, packed 1 dozen, per case	.90
5 lb. Glass Honey Jars, packed 1/2 dozen, per case	.55
10 lb. Friction Top Honey Pails, packed 50, per case	5.00
5 lb. Friction Top Honey Pails, packed 50, per case	3.75
Bee Gloves, per pair	.75
COMB FOUNDATION—25 lb. Lots Thin Surplus (following sizes)	
3 7/8x16, 4 1/2x16 1/4, 4 1/2x17 1/4, 3 11/16x14 1/4	19.75
25 lb. Lots "Hercules" Wired Brood, 8x16 1/4, 8 1/2x16 1/2	18.50
25 lb. Lots "Hercules" Plain Brood, 8x16 1/4, 8 1/2x16 1/2	17.50

BROOD FOUNDATION SIZES, 8x16 1/4 or 8 1/2x16 1/2  
HAVE YOU TRIED OUR "HERCULES" WIRED "IRONSIDES" FOUNDATION?  
WITHOUT A DOUBT THE BEST FOUNDATION ON THE MARKET. DON'T  
TAKE OUR WORD, TRY IT, SEE FOR YOURSELF. Size 8 1/2x16 1/2 only.  
10 Sheets \$1.35 50 Sheets \$6.50 100 Sheets \$12.50

Terms: Cash, F. O. B. Cincinnati.

WE WILL BUY YOUR HONEY AND BEESWAX AND PAY THE CEILING PRICES. NO LOT TOO LARGE OR TOO SMALL. WRITE US.

We also render wax from your old comb and cappings and work your wax into comb foundation at a saving in price. SEND FOR OUR MONEY SAVING PRICE LIST.

**THE FRED W. MUTH COMPANY 229 WALNUT STREET CINCINNATI, 2, OHIO**

**To assure yourself of obtaining the best of supplies, read the ads of A-B-J—when writing to them, mention A-B-J**

## BIG HIVES, AMPLE STORES

(Continued from page 443)

crop in comparison with those in the experimental apiary.

The experimental colonies wintered in the two-story Dadant hives harvested from 250 to 500 pounds of surplus honey each. The hive on scales made a net gain of 549 pounds from May 31 to September 10. Of this amount 449 pounds were removed as surplus and 100 pounds left with the bees for winter.

Ample room and an abundance of stores pay good dividends in any season but especially is it true under unfavorable conditions.

— V —

## HALF MILLION ASKED FOR LEGUME SEED RESEARCH

(Continued from page 435)

Demands for seeds of legumes are constantly increasing while the supply is becoming constantly less. It was pointed out that only about 45% of alfalfa seed and 55% of the clover seed needed during the past two years have been available.

It is anticipated that the demand for seeds will exceed the estimates by substantial amounts and that the situation will become increasingly acute.

Wild pollinating insects are rapidly disappearing. This may be due in part to the constant use of insecticides which destroy useful insects along with insect pests. In order to replace the wild pollinators it will be necessary to expand the beekeeping industry to a substantial extent.

The reconversion program for agriculture requires that large areas of cultivated crops be replaced with meadows and pastures but without seed such change is impossible. Enormous losses through erosion of soil because of excessive tillage have already taken place and protection by use of good sod cover crops is essential for future prosperity.

Never before has the public been conscious of the importance of the honeybee in the national economy as now. It apparently is the only agency for pollination which can be controlled for use where needed. The beekeeper should profit from this public interest. It is assumed that this research program will further emphasize the value of the bees.

— V —

## Buy V-Bonds

AMERICAN BEE JOURNAL

## MEETINGS & EVENTS

(Continued from page 449)

### California (San Jose) Dec. 11-13

The Annual Convention of the California Association will be held in the Municipal Auditorium, San Jose, December 11 to 13. Because of extremely crowded conditions in the state, earlier announcement was not possible. We hope for a large attendance as this is the first post-war meeting of our association.

Thos. J. Davis, Sec'y-Treas.  
J. E. Eckert, Apiculturist.

— V —

### Pettit Holdings Sold

We have just been advised by Mrs. Morley Pettit that she has disposed of the Morley Pettit holdings in Tifton, Georgia to Mr. J. H. Girardeau and son, Jack (J. H. Jr.) who becomes the manager.

Messrs. Girardeau come highly recommended as they are already large beekeepers and package producers in Georgia. We are sure they will make every effort to follow out the policies as pursued by Mr. Pettit in his many years of connection with the beekeeping and package and queen industry.

— V —

## AN AMAZING FACT

"It has been said that a bee travels upwards of 44,000 miles to gather a single pound of honey!"—Housewife Almanac, 1938.

This fact is amazing to me when I think of the amount of honey my family has used on biscuits the past year.—Elizabeth Ritchie, Calif.

— V —

## LILY LIKE A PORCUPINE

(Continue from page 437)

glow like desert beacons, and their peculiar fragrance rides every vagrant breeze. Instead of nectar or pollen, seed is the coin with which the yucca pays for pollination. Helpless to effect pollination without aid, the story of how the yucca "hires" a small moth (*Pronuba yuccasella* and related species) to perform this vital service is a classic among naturalists.

The female moth, on night shift, collects pollen from one flower. She carries the pollen to another blossom which she enters and, crawling deep into the blossom to the ovary, she lays her eggs. Then, as one famous botanist describes it, "in a manner which corresponds to action full of purpose and deliberation, she climbs the stalk of the pistil and thrusts the ball of pollen far down the stigmatic tube." Thus pollination is

effected and the moth assures herself that the ovules, among which she has laid her eggs, will develop into seeds thereby providing her growing young with an abundance of food. And by permitting the moth to place the eggs within her womb, the yucca guarantees the fertilization and development of her own seed. Careful studies have shown that the moth's larvae which feed on the developing seeds rarely consume more than one third of the number which develop. No insect other than the yucca moth is known to be capable of conveying pollen effectively from one yucca blossom to another, and no host other than the yucca provides food for the young of the moth. Here, then, is the perfect example of symbiosis; an insect and a plant utterly dependent upon one another for reproduction.

Truly the yucca is a weird and fascinating plant. Interesting details about its life and habits are many. For instance, in the great gypsum-sand dune area of southern New Mexico, the famous White Sands of Alamogordo, a national monument the yucca is one of the few species of plants which is able to survive the constant movement of the sands under the steady pressure of the prevailing winds. Most plants succumb beneath the irresistible onward march of the dunes, but the yucca surmounts them. How? Instead of being buried by the sand, the yucca is able to keep its crown on top of the rising dune because of its phenomenal ability to stretch its neck. That is, its stem is able to elongate or grow as fast as the sand piles up. Unlike the ostrich, this vegetable giraffe uses its "neck" to keep its heads above the sand. Yuccas growing and blossoming on the crests of the high dunes have been excavated and their stems found to be more than 40 feet in length.

Yuccas are alluring. Poets write about them, photographers take their pictures, ranchers learn to love them and feel out of place in lands where they do not grow. Yuccas are the sign posts of the Southwest. Hawks watch for gophers, and owls lie in wait for kangaroo rats from the vantage points of their dried blossom stalks, and nest in the forks of their shaggy stems. Rabbits dodge beneath their bristling crowns to find haven from the dash of the prowling coyote. Cattle seek their shade in summer heat and find protection in their leas from the sleet-shrapnel of winter winds. Tough, and stiff, and ugly to the stranger, the yucca becomes a gracious friend and a thing of homely beauty as time develops acquaintance and appreciation. Too bad, isn't it, that yucca cannot add nectar production to its imposing list of services to man?

BLUE RIBBON

## Package Bees

"BEST IN THE WEST"  
THOS. C. BURLESON, COLUSA, CALIF.

### MICHIGAN CLOVER HONEY WANTED

Buyer of MICHIGAN'S fine clover honey.  
Michigan producers write me when you have some of this fine Michigan clover honey ready for the market. Can use your entire crop. Don't forget, and write.

TOWNSEND SALES COMPANY  
E. D. Townsend Northstar, Michigan

### Caucasian Bees and Queens For 1946

Please Note—We are booked with orders for both package bees and queens until June 1st. Many thanks.

BOLLING BEE CO., Bolling, Alabama

### KOEHNEN'S

## Package Bees and Queens

For Quality and Service

## KOEHNEN'S APIARIES

GLENN, CALIFORNIA

### Beekeepers Magazine

Serving the National Federation

Subscribe now at \$1.00 per year.  
75c a year through your Association Secretary. Copy current issue 10c.

RT. 5, BOX 181 LANSING, MICHIGAN

### NOTICE

#### THREE-BANDED ITALIANS

96% Baby Bees and 4% Teachers.

We are taking orders for 1946

2-lb. pkg. bees and queen at \$4.00

3-lb. pkg. bees and queen at 5.00

#### DUPUIS APIARIES

Andre Dupuis, Prop.

BREAUX BRIDGE, LOUISIANA

### WICHT'S

3-BANDED ITALIAN PACKAGE  
BEES AND QUEENS ARE  
EXCELLENT

Our recommendation to you: Ask our customers.

Accepting orders for 1946 packages that will be shipped on time.

#### WICHT APIARIES

406 Miller Street : Hattiesburg, Miss.

For Better Beekeeping  
Use

## DADANT'S FOUNDATION

FIRST CHOICE of EXPERT BEEKEEPERS

# • THE MARKET PLACE •

## BEES AND QUEENS

**BREWER'S LINE-BRED CAUCASIAN QUEENS**, breeding stock selected from 1000 field tested colonies for honey production and gentleness. Book your order now for April delivery at \$1.25 each. Inspection certificate furnished and safe arrival guaranteed. Brewer Brothers Apiaries, 3217 Hawthorne Rd. Tampa 6, Florida.

2000 3-lb. **PACKAGES** of Italian bees and queens available for delivery starting March 25 to May 1st. Shipping point Sacramento, California. Price \$5.00 each for 5 or more. J. E. Wing & Sons, Knights Landing, California.

**CAUCASIAN and CARNIOLAN** package bees April, May, 1946 delivery. Booking orders at 1945 prices. Tillery Brothers, Greenville, Alabama.

**TRY OUR THREE BANDED** Italian bees and queens for 1946. Booking orders now. Alamaance Bee Company, Geo. E. Curtis, Mgr., Graham, N. C.

**PACKAGE BEES, QUEENS, Italians**, Circular free. Crenshaw County Apiaries, Rutledge, Alabama.

## HONEY AND BEESWAX WANTED

**WANTED**—Three tons of extracted honey, clover preferred. J. Jones, 115 West 82 Street, New York 24, N. Y.

**NEED MORE CLOVER HONEY**, comb and extracted. Highest prices for any amount. Have 5 lb. and 10 lb. tin honey pails for sale. Can ship at once. Lose Brothers, 206 E. Jefferson Street, Louisville 2, Kentucky.

**WILL PAY** an extra price for pure **ASTER** honey. Send sample. Robt. W. Lane, Greenville, Tenn.

**HONEY WANTED**—Top prices paid. Write immediately. J. Wolosevich, 6315 So. Damen Ave., Chicago, Illinois.

**HONEY WANTED**—All grades, carloads or less. Also beeswax. Pay top prices. H. & S. Honey & Wax Company, Inc., 265-267 Greenwich St., New York 7, N. Y.

**WANTED**—Extracted clover honey in 60's. B. I. Evans, Windom, Minnesota.

**WANTED**—Comb and extracted honey. Clifford H. Denny, 483 Moody Street, Akron 5, Ohio.

**WANTED**—All grades of honey, carloads or less. We pay ceiling prices in cash, call for it or arrange for shipment. Sell your honey to us and we will stick by you always. The Honey Moon Products Co., 39 E. Henry St., River Rouge 18, Michigan.

**WE PAY CEILING PRICES** for wax, and remit the day the wax is received. Your wax made into medium brood foundation at 12 c per lb. The Hawley Honey Co., Iola, Kansas.

**HONEY AND BEESWAX. HIGHEST PRICES PAID. MAIL SAMPLES, ADVISE QUANTITY.** BRYANT AND COOKINHAM, LOS ANGELES, CALIFORNIA.

**HONEY WANTED**—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. **HAMILTON & COMPANY**, 1360 Produce Street, Los Angeles, California.

**WANTED**—Extracted honey, white or light amber, in 60's. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

**HONEY WANTED**—Small or large lots. Send sample and amount. Rocke Apiaries, Eureka, Illinois.

**CASH FOR YOUR WAX** the day received. Write for quotations and shipping tags. Walter T. Kelley Co., Paducah, Kentucky.

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are eight cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other reference with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease or state exact condition, or furnish certificate of inspection from authorized inspectors. Conditions should be stated to insure that buyer is fully informed.

**ALL GRADES** extracted honey wanted. Bee supplies and honey containers for sale. Prairie View Honey Co., 12243 12th Street, Detroit, Michigan.

**CLOVER HONEY WANTED**—Small or large lots. Send sample, state quantity, and how packed. Ellsworth A. Meineke, Arlington Heights, Illinois.

## HONEY FOR SALE

60 cans clover honey. Mrs. Gladys Warner, Pennock, Minnesota.

## SUPPLIES

**INSTANT SEVEN AND NINE FRAME SPACERS.** Fast—Accurate. Fat combs, easy uncapping. Set does all supers. \$1.50 postpaid. **SPECIFY SIZE.** George Leys, 48 Drake Avenue, New Rochelle 2, New York.

**BEE SUPPLIES**—Large stock on hand. Simeon Beiler, Intercourse, Pennsylvania.

**HIVE BODIES**, covers and bottom boards, bee shipping cages and nuclei hives. All supplies new and knocked down. Price list furnished on request. A & B Supply Company, Coffee Springs, Alabama.

**YOUR WAX WORKED** into high quality medium brood foundation for 16c pound; 100 pounds \$12.00. Fred Peterson, Alden, Iowa.

**SAVE ON HONEY CONTAINERS IN MINNEAPOLIS.** Pre-war quality tin and glass honey containers at pre-war prices. Friction top pails are back. Send for price list. Prompt shipments made from large stock of Lewis-Dadant bee supplies. Send list of needed supplies for quotation. **TOP PRICES PAID FOR HONEY AND BEES. WAX IN CASH OR TRADE. HONEY SALES COMPANY**, 1806-08 No. Washington Avenue, Minneapolis 11, Minnesota.

**PORTER BEE ESCAPES** are fast, reliable, labor savers. R & E. C. Porter, Lewis-ton, Illinois.

**WRITE FOR CATALOGUE.** Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

**LARGE CASH SAVINGS** can be made by letting us work your wax into either wired or plain foundation. Large independent factory manufacturing a complete line of bee supplies including extractors, etc. Selling direct saves you the agent's profit. Quick shipment from large stock. Large free catalogue explains everything. Walter T. Kelley Co., Paducah, Kentucky.

## FOR SALE

40 **COLONIES** bees and equipment, 10 frame two story colonies. H. B. Hale, Chillicothe, Illinois.

**BEEKEEPERS' HOIST**—\$25.00, f.o.b.—Frt. prepaid in U. S. A. on two hoists to same address. Turner Mfg. Co., Corning, Iowa.

**EMPTY HONEY CANS.** Just pick them up at our bakery. Holland Honey Cake Co., Holland, Michigan.

60 **LB. HONEY CANS**, mostly used once, 4 cans to wooden crate 75c; 2 cans to wooden case 50c. J. Wolosevich, 6315 So. Damen, Chicago, Illinois.

100 **GALLON HONEY TANK** \$12.00. Geo. E. Capwell, Cottonwood Falls, Kansas.

**FOR SALE**—Assortment of bee supplies including 10 small traps, 5 large traps; 29 24-lb. supers, 9 28-lb. supers; 23 metal top beehives; new and used dividing boards; 325 new split sections; springs, starter, and various other items. See or write Mrs. Fred K. Hancock, Rt. 4, Cameron, Mo.

**FOR SALE**—500 ten-frame three story colonies of Caucasian bees. These bees produced 58,000 pounds of honey this season. A real bargain for a cash buyer. Sam Alexander, Rt. 7, Box 3914, Sacramento, California.

**FOR SALE**—Special Opportunity—Complete package bee and honey business in the heart of the Sacramento Valley of Northern California. Over 3,000 colonies—all standard ten frame dovetail equipment no junk, large ware house and other buildings, equipped with modern extracting equipment, tanks, wax house, steam boiler. Two good trucks and attractive modern home on paved street. Everything first class and a fine established business, showing a consistent profit over twenty years. Thos. C. Burleson, Box 239, Colusa, California.

**COMPLETE** fully equipped outfit of 1500 hives, nuclei, extractor, tanks and established package and honey production in central and northern California. Al Winn, Rt. 1, Box 729A, Petaluma, California.

## WANTED

**WANT TO TRADE**—New queen cages and package shipping cages for package bees. John Harnack and Son, McGregor, Iowa.

**WANTED**—Partner, unmarried lady, in my bee business. My location is good and has a future. Paul Jakish, Star Rt., Klaber, Washington.

## POSITIONS AND HELP WANTED

**WANTED**—Reliable and sober helper for general bee work in queen yards and out-yards. Please give age, wages expected and full details in first letter. Work starts Jan. 1st, stops July 1st, or might have steady employment. B. A. Anderson & Co., Opp, Alabama.

**WANTED**—Experienced helper for 1946 season for very modern one-thousand hive unit in Iowa. Permanent year round work. State age, height, and wages expected. Box O, care American Bee Journal.

**HELPER** for 1946 season, March first to November. Send description of self and salary expected. Board and room furnished Honey Lee Apiaries, Godfrey, Illinois.

**HELP WANTED** for apiary work. Experienced or inexperienced. Married or single. Top wages to dependable help. M. E. BALLARD, Roxbury, N. Y.

**WANTED**—Discharged service man with experience handling bees to take charge of apiary. Must take partnership in business.

**WANTED**—Two men to work bees the year around. Could start work at once in our Arizona apiaries, and help harvest our crop in Idaho during summer. Good wages and chance for advancement. Give age, experience and references. **POWERS' APIARIES**, Parma, Idaho.



Located in Midwest. Grand opportunity for good man. Write Box 123, American Bee Journal.

**HELP WANTED**—One each, queen breeder and package man, thoroughly experienced and capable of assuming responsibility incident to the work assigned you. Also helpers with or without experience. Permanent place, good pay fully commensurate with ability to produce. Fair treatment, good working conditions, and a good outfit. Priority given ex-service men with honorable discharges. No drinkers need apply. Jensen's Apiaries, Macon, Mississippi.

**ONE QUEEN BREEDER** or a good helper in outyards. Wicht Apiaries, 406 Miller St., Hattiesburg, Mississippi.

#### MISCELLANEOUS

**FOR RENT ON SHARES** 250 good hives of bees. State experience and give references in first letter. John Burghardt, Jewell, Iowa.

**DRY SKIM MILK** 35 cents a pound; 5 lbs. \$1.25. Brewer's yeast 40 cents a pound; 5 lbs. \$1.50. Soy flour expeller, 10 lbs. \$1.40. F. O. B. Bainbridge, N. Y. Write for prices in larger units. M. Y. S. Company, Bainbridge, New York.

**SOY FLOUR** for pollen substitute. "Special X" Soy Flour (Expeller Method) 5 pounds \$1.00; 10 pounds, \$1.75, postpaid. 25c additional west of Rocky Mountains. Remit with order. Spencer Kellogg & Sons, Inc., Decatur 80, Illinois.

**INDIAN BEE JOURNAL**—Official organ of the All India Beekeepers' Association. Yearly subscription price \$1.50 a year (7s 6d) by international money order. Address **INDIAN BEE JOURNAL**, Ramgarh, Dist. Naini Tal, U. P. India.

**EARTHWORM CULTURE**—Send postcard for valuable FREE bulletin, with review on "Intensive Propagation and Use of Earthworms in Soil-building." Thos J. Barrett, Earthmaster Farms, Box 488-H, Roscoe, California.

**RANCH MAGAZINE**—Do you find it difficult to secure information about sheep and sheep ranching methods? The **SHEEP AND GOAT RAISER** reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$1.50. Hotel Cactus, San Angelo, Texas.

**THE BEE WORLD**—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club, including subscription to the paper 10/6. The **Apis Club**, The Way's End, Foxton, England.

**DIFFERENT**, that's all. Written and published for the instruction of beekeepers, contains breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.60. Sample 3 cents stamp. Beekeepers Item, San Antonio, Texas.

#### SEEDS AND TREES

**SEEDS OF HONEY PLANTS**. Send for new circular of forty unusual forage crops, ornamentals and plants for waste lands. All good nectar producers. Fifteen packet collection \$2. Anise-hyssop \$2 per ounce, \$5 per ¼ pound. Ladino clover \$2.50 per pound postpaid. Melvin Pellett, Atlantic, Iowa.

**CLEAN ANISE-HYSSOP SEED**. Packet 25 cents. Write for prices in pound lots. James Beecken, Rt. 1, Elgin, Illinois.

**FOR SALE**—Sainfoin seed. Over 10 lbs., 55c per lb. Less, 75c per lb., not postpaid. Perennial legume, soil builder, hay crop and honey plant. R. W. Brimhall, Pleasant Grove, Utah.

**TRIFOLIUM AMBIGUUM** or Pellett Clover, the new clover that spreads by the root. Minimum order, 100 root cuttings, \$5.00 postpaid. Order now for immediate or spring shipment. No seed available. Melvin Pellett, Atlantic, Iowa.

#### Middle Tennessee Apiaries : Leather Colored Italian Queens

From imported breeding stock. 1-25, \$1.25 each. 26 or more \$1.10 each. One-fourth books orders—balance before shipping. Add 5 cents for all queens by air mail.

ALL QUEENS AFTER JUNE 15TH \$1.00 EACH

**J. B. TATE & SON**

1029 No. 4th St.

Telephone 34500 M.

NASHVILLE (7), TENNESSEE

## Announcement

Due to the loss of our workshop by fire, we moved to Gheens, Louisiana.

For package bees and queens, write:

**EPHARDT'S HONEY FARMS**

**Gheens, Louisiana**

## NO CHANGE IN PRICES

### 1946

Make reservations now for Package Bees and Queens for next season at last season's prices. Preferred dates are being rapidly filled.

**THE PUETT COMPANY**  
**HAHIRA, GA.**

## Merry Christmas and a Prosperous New Year

TO ALL MY CUSTOMERS OF PAST YEARS OF PACKAGE BEES

The war is over and with the help of our returning men from armed forces I wish to better serve my customers, likewise the new prospect. Book your order early to avoid the rush. Light 3-Banded Italian and daughter queens of government resistant stock.

**HOMER W. Richard, Rt. 3, Box 252-A, El Dorado, Ark.**

## Three Band Italian Bees with Queens for 1946

	1 to 24	24 to 48	48 Up
2-LB. ....	\$4.00	\$3.75	\$3.60
3-LB. ....	5.00	4.75	4.60

**E. R. RALEY, 710 W. Altamaha St., Fitzgerald, Ga.**

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You can't go wrong with A-B-J Labels. They sell honey and are priced right. . . . Send for complete catalog  
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Please all members of the family by making your selections from those listed below. The special book, the general one, for the layman, for the beekeeper. We have a full line. ALL PRICES POSTPAID.



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- BIRDS OF THE WILD** by Frank C. Pellett. A book of absorbing interest to the bird lover who wishes to attract his feathered friends to his home garden. \$1.00.
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- DADANT SYSTEM OF BEEKEEPING** by C. P. Dadant. Methods of using the large hive. A system of beekeeping which proved a success through three generations of beekeepers. Available also in French, Spanish and Italian. 120 pages. Cloth. \$1.00.
- BEEKEEPING** by E. F. Phillips. A comprehensive study of beekeeping theory and practice. The author is professor of apiculture at Cornell University. \$4.00.
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- OUTAPIARIES** by M. G. Dadant. An outline of the equipment, location and management necessary in operating an outyard system. 125 pages. Cloth. \$1.00.
- THE LIFE OF LANGSTROTH** by Florence Naile. This is the life history of L. L. Langstroth, America's master of bee culture, and is a book every beekeeper should have in his library. Cloth bound, 215 pages, price \$2.00.
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# CROP AND MARKET REPORT

Compiled by M. G. DADANT

For our December Crop and Market page, we asked reporters to answer the following questions:

1. How much honey remains not extracted?
2. How much honey not disposed of?
3. Condition of bees going into winter.
4. Honey plant conditions compared to a year ago.

## Honey Not Extracted

The picture is changed radically since our last report came in on the amount of honey not extracted. There are still a few big producers on November 15 who had not completed their extracting on account of the lateness of the season, but the shortness of the fall crop and the extra time given has enabled practically all beekeepers to get their extracting done ahead of any decisively cold weather. We would imagine that at least 95 per cent of the honey was extracted by November 15. This, of course, is a lot later than ordinarily, but apparently without any difficulty, owing to its lateness.

## Honey Unsold

Here we have a radical departure from most years even from the previous war years when honey has been in such demand. This time, either the honey has quickly been disposed of by shipping to the cooperatives or packer or has been sold directly to the consumers. We would imagine that double the amount of honey has been sold directly from the apiary than in any ordinary season and this is substantiated by the heavy sales of smaller packages in small quantities to the honey producer as well as in small orders for honey labels. In most instances, our reporters say that no honey remains unsold. In no case was 50 per cent of the crop unsold and in only occasional cases was 10 per cent held in reserve for future sale. Ordinarily we look upon the industry as pretty well off if half of the crop has been disposed of previous to the holidays. Right now it is a question of trying to pacify the prospective customer and even the old customer by telling him that 1946 honey may be available next July. The situation is not exactly a healthy one because many of these consumers

will be unable to obtain honey either from their usual sources or through the larger packing plants. The packing plants may be getting a better distribution, although this is doubtful as their volume of honey handled is no greater, we believe, than it was two or three years ago. The same conditions on honey prevail in the Canadian provinces as in the United States and the importations of honey have not been sufficient to make up for the demand, although we believe that some packers have been able to get quite nice supplies of satisfactory honey to eke out until the honey situation in this country becomes a little less tense.

## Condition of Bees

Throughout the entire country, the condition of bees is satisfactory and will be the equal of this time last year which was probably above normal. The New England states are especially satisfied with the condition of bees although Connecticut reports the possibility of shortage of stores. New Jersey and the southeast coast from Virginia to Georgia also are somewhat concerned about the amount of stores the bees have available for the winter season. However, in most cases, the rains have not materially interfered with the fall honey crop. This does not apply, however, to Ohio and Michigan which did not harvest much fall honey on account of rain, and therefore are wondering whether the colonies will have sufficient stores to carry through. smattering reports from Minnesota would indicate the same thing.

Wyoming reports shortage of stores and this condition probably prevails throughout the Canadian provinces accentuated in many cases by the difficulty in getting sugar for feed.

All in all, we believe the condition of bees is approximately as good as a year ago, although there is a question in my mind whether they have as much honey on hand to carry them through winter and also whether a larger percentage of the colonies will not turn up with a missing queen when spring arrives.

## Condition of Plants

Here we have universal reports that honey plants are in excellent condition. In most spots, we believe

that conditions are better than a year ago and honey plants a year ago were considered above normal. New York especially reports quite satisfactory conditions, much the reverse of last year. The South, of course, depending as it does largely upon waste land shrubs and trees, has 100 per cent conditions. It is in the central West, however, and Plains area that we are having reported conditions above ordinary. With a very satisfactory rainfall throughout the late fall, the little white Dutch clover plants are again in excellent condition and there seems to be more sweet clover growing both in waste places and on farm lands than there was a year ago. Undoubtedly, the "worm is turning," as concerns getting sweet clover back into the rotation and getting away from the hard drive for soybeans and corn. The lateness of moisture in Montana probably has slowed up honey plants there, so that Montana and also Wyoming report conditions somewhat under normal.

Otherwise, we believe that normal conditions or better prevail for the honey plants with an even prospect that both colonies and bees may come into the 1946 spring in as good condition as a year ago. We may have better spring conditions than we had in 1945.

As always, the beekeeper, as the farmer, is gambling on moisture and soil conditions when the crop is in the making.

— V —

## CONTEMPORARY BEEKEEPING

Recent letters to us from correspondents in European countries give us the information that apiaries were badly depleted both by destruction and by loss through starvation, etc., so that the situation is now serious. It is barely possible that our southern package shippers may eventually find in these countries a market for their package bees since air transport would obviate the long time voyage and deliver bees probably as easily and almost as cheaply as in our northern sections and in Canada.

A letter recently from an Algerian correspondent reports desirable and satisfactory crops in that country, but complete lack of all types of material, most of which was imported as there is no native timber in this region.

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# THE POSTSCRIPT

Some of the arguments about honeybees getting honey from long tubed flowers can be explained by the cutting of the corollas by wood bees. Some years ago A. C. Burrill, of the Missouri Museum, found that the wood bees (*Xylocopa virginica*), slit hundreds of honeysuckle tubes to reach the nectar and that they were followed by honeybees which used the openings for the same purpose. I have found the honeybees working freely on the deep flowers of the buffalo currant and the trumpet creeper through such openings.

— V —

E. L. Sechrist, now of Roscoe, California, is experimenting with an electric heater to see what the bees will do if the hive is kept warm. "The idea is to keep the inside hive temperature up to 85°F. by electric heat and allow the bees to add the remaining 18° which their normal metabolism does without calling on them to keep the hive warm. This would allow them to expend their energies on brood rearing instead of on keeping up a brood rearing temperature." It is assumed that more brood will be reared than would normally appear in an unheated colony.

— V —

It will be interesting to see what happens. Sometimes such experiments bring surprising results which may be quite different from expectations. Perhaps the bees will acquire habits such as are common to the tropics and instead of producing a large population will slow down, since they are no longer compelled to overcome the handicap of unfavorable weather. In case they are encouraged to expand brood rearing rapidly it may well be that in a few years we will be warming the hives in early spring to encourage breeding in order to get ready for a crop from dandelion.

— V —

I am indebted to S. B. Detwiler, of Arlington, Virginia, for information about the velvet tree or cork tree, (*Phellodendron*) which he says is the source of fine bee pasture. Coming from Manchuria or China the tree is very hardy and thrives on poor soil. As yet the tree seems to be but little known and is found mostly in city parks. It is recommended for lawn specimens or roadside planting. Detwiler has had the fruit analyzed and found it to contain an oil that might be used in perfume or soap as well as an insecticide. Perhaps a nursery can be found which offers these trees at a price to encourage beekeepers to plant them over a wide area. It would seem that our industry should be able to interest some institution

in a planting of trees for bees.

— V —

One of the few reports of the bees getting honey from lupines comes from F. W. Haack, of Klamath Falls, Oregon. He found the bees apparently gathering honey from a low growing lupine near Millbrae, California, and says it is the only place he ever saw the bees working lupines. I have not found the bees visiting any of the lupines in our test garden and have wondered at the Australian report of the Government Botanist who placed lupines among the most important honey plants. In Texas there seems to be much disagreement among the beekeepers as to whether the blue lupine, commonly called "Bluebonnet," is the source of nectar.

— V —

Mrs. Elmer Timson, of Independence, Iowa, tells an interesting story of the management of their 280 acre farm. They combine beekeeping and dairying and feed all roughage in order to maintain soil fertility. As farmer beekeepers they seek plants which will provide forage for the bees, high grade feed for the livestock and a means of improving soil fertility and preventing erosion. That is the kind of farming which provides security for the owner over a long period of time, insures permanent prosperity for the heirs and prevents loss of the soil. We need more of that kind of farming.

— V —

The picture on the cover of the November Journal shows life size blossoms of the new clover which has aroused so much interest. Some have written to tell us that they are anxious to try it and if it does well to plant it extensively. It is one plant which can be increased rapidly from a small start. All the plants shown in the pictures, as well as those distributed to experiment stations, have grown from only four or five plants which we secured from about a dozen seeds planted in the spring of 1941.

— V —

My nephew, Ted Pellett, harvested about fifteen bushels of seed of white Dutch clover from a small pasture near our apiary. The pasture was grazed by the usual number of cattle during the summer. Thus it provided pasture for the cows, honey for the bees and seed for the farmer. At present prices the seed alone was a profitable crop from the small area. Beekeepers who own land are likely to find the combination of seed growing with honey production to be both safe and profitable.

FRANK C. PELLETT.

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## DARK HONEY

Most of us are familiar with the work of Dr. Sheutte of the University of Wisconsin, showing the comparative content and diet value of dark in comparison with light honey. In these studies dark honey carried the day. In the Beekeepers Item for August under the title "Dark versus Light Honey" is a report of studies by M. H. Haydak and Dr. M. C. Tanquary, University Farm, Minnesota.

We quote: "We fed young rats with whole milk to which 20 per cent of honey was added. Equivalent amounts of beet sugar (Sucrose) were fed to the control rats. After 10 weeks on such a diet, the hemoglobin of the blood of the rats fed dark honey increased from 10.8 grams to 11.4 grams; that of the rats fed light honey decreased from 10.6 to 4.6 grams; and sucrose-fed rats had their hemoglobin as low as 3.6 grams per 100 cubic centimeters of blood.

"However, the rats offered a milk-dark honey mixture were consuming more food than those fed light honey and sucrose as an addition to their diet. In order to compare these diets in an exact way it was necessary to restrict each rat in the dark honey

group to the amount consumed by the rats fed light honey or sucrose.

"After this was done the results were as follows: in 15 weeks the hemoglobin in the blood of the rats receiving dark honey supplement rose from 10.5 to 11.0 grams; that of the rats receiving light honey fell by the tenth week to about 4 grams per 100 cubic centimeters of blood and remained at that level to the end of the experiment. The hemoglobin content of the blood of the control animals receiving sucrose supplement fell steadily reaching the level 2.9 grams per 100 CC. of blood.

"When the hemoglobin content of the blood of young rats was reduced by a whole milk diet to 6 or 4 grams per 100 CC. level, the addition of 20 per cent dark honey to the milk caused a gradual increase in the hemoglobin while the addition of 20 per cent light honey permitted a gradual further decline in the hemoglobin until a level of about 3 grams per 100 CC was reached.

"It was concluded that the dark honey can play a role in the prevention and cure of nutritional anemia in rats while light honey is less effective as a source of the blood-forming elements."

So why, we ask, does the market insist on white honey as a basis of sales? Why is dark honey always considered to be worth less by many who buy honey and yet why does white honey appear on the market as a blend of light amber? Isn't it about time that those who produce dark honey receive some consideration beyond color?

—V—

## INCREASE IN SUBSCRIPTION RATES

Beginning January 1, 1946, the American Bee Journal will increase its subscription rates as follows: 1 year for \$1.50, 2 years for \$2.50, and 3 years for \$3.00. Members of beekeeper's associations may subscribe to the American Bee Journal at the rate of \$1.00 per year if sent to us through the secretary of the association.

Those desiring to do so may subscribe or renew their present subscription at the current rates providing notice is received prior to January 1, 1946.

This increase in subscription rates is necessary due to increased costs of materials and labor.

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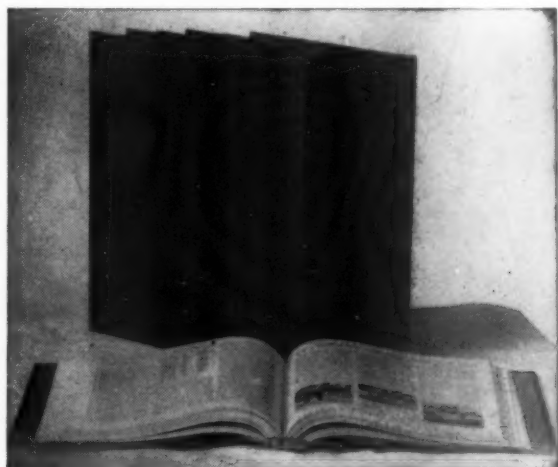
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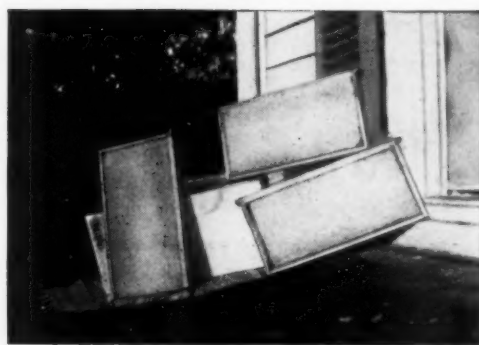
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